Natural Resources Canada

2014-15

Report on Plans and Priorities

The Honourable Joe Oliver
Minister of Natural Resources

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ESTIMATES

PART III – Departmental Expenditure Plans: Reports on Plans and Priorities

Purpose

Reports on Plans and Priorities (RPPs) are individual expenditure plans for each department and agency. These reports provide increased levels of detail over a three-year period on an organization's main priorities by strategic outcome, program and planned/expected results, including links to related resource requirements presented in the Main Estimates. In conjunction with the Main Estimates, RPPs serve to inform members of Parliament on planned expenditures of departments and agencies, and support Parliament's consideration of supply bills. The RPPs are typically tabled soon after the Main Estimates by the President of the Treasury Board.

Estimates Documents

The Estimates comprise three parts:

Part I – Government Expenditure Plan – provides an overview of the Government's requirements and changes in estimated expenditures from previous fiscal years.

Part II – Main Estimates – supports the appropriation acts with detailed information on the estimated spending and authorities being sought by each federal organization requesting appropriations.

In accordance with Standing Orders of the House of Commons, Parts I and II must be tabled on or before March 1.

Part III – Departmental Expenditure Plans – consists of two components:

- Report on Plans and Priorities (RPP)
- Departmental Performance Report (DPR)

DPRs are individual department and agency accounts of results achieved against planned performance expectations as set out in respective RPPs.

The DPRs for the most recently completed fiscal year are tabled in the fall by the President of the Treasury Board.

Supplementary Estimates support Appropriation Acts presented later in the fiscal year. Supplementary Estimates present information on spending requirements that were either not sufficiently developed in time for inclusion in the Main Estimates or have subsequently been refined to account for developments in particular programs and services. Supplementary Estimates also provide information on changes to expenditure forecasts of major statutory items as well as on such items as transfers of funds between votes; debt deletion; loan guarantees; and new or increased grants.

For more information on the Estimates, please consult the Treasury Board Secretariat website.[i]

Links to the Estimates

As shown above, RPPs make up part of the Part III of the Estimates documents. Whereas Part II emphasizes the financial aspect of the Estimates, Part III focuses on financial and non-financial performance information, both from a planning and priorities standpoint (RPP), and an achievements and results perspective (DPR).

The Management Resources and Results Structure (MRRS) establishes a structure for display of financial information in the Estimates and reporting to Parliament via RPPs and DPRs. When displaying planned spending, RPPs rely on the Estimates as a basic source of financial information.

Main Estimates expenditure figures are based on the Annual Reference Level Update, which is prepared in the fall. In comparison, planned spending found in RPPs includes the Estimates as well as any other amounts that have been approved through a Treasury Board submission up to February 1 (See Definitions section). This readjusting of the financial figures allows for a more up-to-date portrait of planned spending by program.

Changes to the presentation of the Report on Plans and Priorities

Several changes have been made to the presentation of the RPP partially to respond to a number of requests – from the House of Commons Standing Committees on Public Accounts (PAC - Report 15[ii]), in 2010; and on Government and Operations Estimates (OGGO - Report 7[iii]), in

2012 – to provide more detailed financial and non-financial performance information about programs within RPPs and DPRs, thus improving the ease of their study to support appropriations approval.

- In Section II, financial, human resources and performance information is now presented at the Program and Sub-program levels for more granularity.
- The report's general format and terminology have been reviewed for clarity and consistency purposes.
- Other efforts aimed at making the report more intuitive and focused on Estimates information were made to strengthen alignment with the Main Estimates.

How to read this document

RPPs are divided into four sections:

Section I: Organizational Expenditure Overview

This Organizational Expenditure Overview allows the reader to get a general glance at the organization. It provides a description of the organization's purpose, as well as basic financial and human resource information. This section opens with the new Organizational Profile, which displays general information about the organization, including the names of the minister and the deputy head, the ministerial portfolio, the year the organization was established, and the main legislative authorities. This subsection is followed by a new subsection entitled Organizational Context, which includes the *Raison d'être*, the Responsibilities, the Strategic Outcomes and Program Alignment Architecture, the Organizational Priorities and the Risk Analysis. This section ends with the Planned Expenditures, the Alignment to Government of Canada Outcomes, the Estimates by Votes and the Contribution to the Federal Sustainable Development Strategy. It should be noted that this section does not display any non-financial performance information related to programs (please see Section II).

Section II: Analysis of Program(s) by Strategic Outcome(s)

This Section provides detailed financial and non-financial performance information for strategic outcomes, programs and sub-programs. This section allows the reader to learn more about programs by reading their respective description and narrative entitled "Planning Highlights". This narrative speaks to key services or initiatives that support the plans and priorities presented in Section I; it also describes how performance information supports the organization's strategic outcome or parent program.

Section III: Supplementary Information

This section provides supporting information related to organizational plans and priorities. In this section, the reader will find future-oriented statement of operations and a link to supplementary information tables regarding transfer payments, as well as information related to the greening of government operations, internal audits and evaluations, horizontal initiatives, user fees, major Crown and transformational projects, and up-front multi-year funding, where applicable to individual organizations. The reader will also find a link to the *Tax Expenditures and Evaluations* publication, produced annually by the Minister of Finance, which provides estimates and projections of the revenue impacts of federal tax measures designed to support the economic and social priorities of the Government of Canada.

Section IV: Organizational Contact Information

In this last section, the reader will have access to organizational contact information.

Definitions

Appropriation

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

Budgetary Vs. Non-budgetary Expenditures

> Budgetary expenditures – operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.
>
> Non-budgetary expenditures – net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

Expected Result

An outcome that a program is designed to achieve.

Full-Time Equivalent (FTE)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. FTEs are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

Government of Canada Outcomes

A set of high-level objectives defined for the government as a whole.

Management Resources and Results Structure (MRRS)

A common approach and structure to the collection, management and reporting of financial and non-financial performance information.

An MRRS provides detailed information on all organizational programs (e.g., program costs, program expected results and their associated targets, how they align to the government's priorities and intended outcomes) and establishes the same structure for both internal decision making and external accountability.

Planned Spending

For the purpose of the RPP, planned spending refers to those amounts for which a Treasury Board (TB) submission approval has been received by no later than February 1, 2014. This cut-off date differs from the Main Estimates process. Therefore, planned spending may include amounts incremental to planned expenditure levels presented in the 2014-15 Main Estimates.

Program

A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results, and that are treated as a budgetary unit.

Program Alignment Architecture

A structured inventory of an organization's programs, where programs are arranged in a hierarchical manner to depict the logical relationship between each program and the Strategic Outcome(s) to which they contribute.

Spending Areas

Government of Canada categories of expenditures. There are four spending areas[iv] (social affairs, economic affairs, international affairs and government affairs) each comprising three to five Government of Canada outcomes.

Strategic Outcome

A long-term and enduring benefit to Canadians that is linked to the organization's mandate, vision, and core functions.

Sunset Program

A time-limited program that does not have ongoing funding or policy authority. When the program is set to expire, a decision must be made as to whether to continue the program. (In the case of a renewal, the decision specifies the scope, funding level and duration.)

Whole-of-Government Framework

A map of the financial and non-financial contributions of federal organizations receiving appropriations that aligns their programs to a set of high-level outcome areas defined for the government as a whole.

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Minister's Message

As Minister of Natural Resources, I am pleased to present the *2014-15 Report on Plans and Priorities* for Natural Resources Canada.

The natural resources sector is critical to the Canadian economy. It directly and indirectly accounts for almost one-fifth of nominal GDP, provides 1.8 million jobs throughout Canada and generates government revenue which supports important programs, such as health care and education.

We are witnessing a fundamental shift in the global economy where world trade and investment patterns are changing, particularly with regard to energy markets.

Although demand for energy is expected to grow by one-third by 2035, most of that growth comes from emerging economies in Asia, Africa and Latin America. Currently, Canada exports almost all of its energy products to the United States. For Canadians to benefit fully from our natural resources, we must be able to sell them beyond the limits of North America. However, a lack of key infrastructure, particularly in relation to energy resources, threatens to strand these resources at a time when global demand is soaring.

Now more than ever, our future prosperity depends on responsible development of these resources. Doing so requires focus and action. It means building infrastructure so our oil and gas can reach new markets. It means ensuring we have a world-class safety system, and enhancing the conditions for Aboriginal peoples to participate in Canada's prosperity. It also means strengthening our relationships with global partners and accelerating innovation to improve economic and environmental outcomes.

To diversify our markets and attract investment, our Government will continue to reduce barriers to trade, facilitate market access, and brand Canada as a reliable and responsible supplier of resources. We also remain focused on innovation in our forest sector, improving energy efficiency, providing geoscience knowledge on areas of high resource potential to the public and researching ways to manage natural hazards, such as earthquakes. Our government understands that science and technology are integral for a strong, competitive natural resource sector.

I invite you to read this report to learn more about the initiatives that Natural Resources Canada is pursuing to support Canada's continued prosperity through the responsible development of our natural resources.

The Honourable Joe Oliver, P.C., M.P.
Minister of Natural Resources

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Section I: Organizational Expenditure Overview

Organizational Profile

Minister: The Honourable Joe Oliver, P.C., M.P.

Deputy head: Serge Dupont

Ministerial portfolio:

- Atomic Energy of Canada Limited[v] (AECL);
- National Energy Board[vi] (NEB);
- Canadian Nuclear Safety Commission [vii](CNSC);
- Canada-Newfoundland and Labrador Offshore Petroleum Board[viii] (CNLOPB);
- Canada-Nova Scotia Offshore Petroleum Board[ix] (CNSOPB);
- Northern Pipeline Agency [x](NPA);
- Sustainable Development Technology Canada [xi](SDTC); and
- Energy Supplies Allocation Board (ESAB)[xii] (inactive).

Year established: 1994

Main legislative authorities:

- *Department of Natural Resources Act*, [xiii]S.C. 1994, c. 41
- *Forestry Act*, [xiv]R.S.C., 1985, c. F-30
- *Resources and Technical Surveys Act*, [xv]R.S.C., 1985, c. R-7

Organizational Context

Raison d'être

The vision of Natural Resources Canada (NRCan) is to improve the quality of life of Canadians by creating a sustainable resource advantage. It seeks to achieve this vision by working to improve the competitiveness of the natural resource sectors and to grow their contribution to Canada's economy, by supporting the sustainable development of Canada's resources in a manner that advances the country's global standing as a leader on the environment, and by using its knowledge and expertise of Canada's landmass to support the safety and security of citizens.

Responsibilities

The Minister of Natural Resources is specifically responsible for, or has responsibilities under, more than 30 acts of Parliament. The Minister's core powers, duties and functions are set forth in the *Department of Natural Resources Act*, the *Resources and Technical Surveys Act* and the *Forestry Act*. NRCan also works in areas of shared responsibilities with provinces.

To deliver on its responsibilities, NRCan relies on a number of instruments. It uses science and technology (S&T) to help address priorities and to plan for the future. It develops policies, programs, and regulations that help create a sustainable resource advantage, supporting strong, competitive natural resource sectors that are environmentally and socially responsible. And it uses partnerships and international collaboration to help drive progress on natural resource issues important to Canadians. More broadly, the Department plays a critical role in Canada's future, contributing to high-paying jobs, business investment and overall economic growth in Canada's natural resource sectors.

NRCan has offices and laboratories from coast to coast to coast. About half of its occupied facilities are in the National Capital Region, with the remainder being distributed from Atlantic Canada, through Quebec and Ontario, to the Western and Pacific Regions and Northern Canada.

Strategic Outcome(s) and Program Alignment Architecture (PAA) for 2014-15

Strategic Outcome 1: **Canada's Natural Resource Sectors are Globally Competitive**

- **Program 1.1**: Market Access and Diversification
  - **Sub-Program 1.1.1**: Mineral and Metal Markets Access and Development
  - **Sub-Program 1.1.2**: Forest Products Market Access and Development
  - **Sub-Program 1.1.3**: Energy Market Regulation and Information
- **Program 1.2**: Innovation for New Products and Processes
  - **Sub-Program 1.2.1**: Mining Innovation
  - **Sub-Program 1.2.2**: Forest Sector Innovation
  - **Sub-Program 1.2.3**: Geospatial Innovation
- **Program 1.3**: Investment in Natural Resource Sectors
  - **Sub-Program 1.3.1**: Mineral Investment
  - **Sub-Program 1.3.2**: Targeted Geoscience Initiative 4 (TGI4)
  - **Sub-program 1.3.3**: Geo-Mapping for Energy and Minerals
  - **Sub-program 1.3.4**: New Energy Supply
  - **Sub-program 1.3.5**: Major Projects Management Office Initiative
- **Program 1.4**: Statutory Programs – Atlantic Offshore

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

- **Program 2.1**: Energy-Efficient Practices and Lower-Carbon Energy Sources
  - **Sub-Program 2.1.1**: Renewable Energy Deployment
  - **Sub-Program 2.1.2**: Support for Clean Energy Decision-Making
  - **Sub-Program 2.1.3**: Alternative Transportation Fuels
  - **Sub-Program 2.1.4**: Energy Efficiency
- **Program 2.2**: Technology Innovation
  - **Sub-Program 2.2.1**: Materials for Energy
  - **Sub-Program 2.2.2**: Green Mining

Sub-Program 2.2.3: Clean Energy Science and Technology

Program 2.3: Responsible Natural Resource Management

Sub-Program 2.3.1: Forest Ecosystem Science and Application

Sub-Program 2.3.2: Groundwater Geoscience

Sub-program 2.3.3: Environmental Studies and Assessments

Sub-program 2.3.4: Radioactive Waste Management

Sub-program 2.3.5: Earth Observation for Responsible Resource Development

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Program 3.1: Protection for Canadians and Natural Resources

Sub-Program 3.1.1: Explosives Safety and Security

Sub-Program 3.1.2: Materials and Certification for Safety and Security

Sub-Program 3.1.3: Forest Disturbances Science and Application

Sub-Program 3.1.4: Climate Change Adaptation

Sub-Program 3.1.5: Geohazards and Public Safety

Program 3.2: Landmass Information

Sub-Program 3.2.1: Essential Geographic Information

Sub-Program 3.2.2: Canada's Legal Boundaries

Sub-Program 3.2.3: Polar Continental Shelf Logistics Support

Sub-Program 3.2.4: United Nations Convention on the Law of the Sea

Program 4.1: Internal Services

Organizational Priorities

NRCan has identified five priorities critical to meeting its strategic outcomes, thereby supporting the Government of Canada's priorities. These priorities have guided, and continue to guide, the delivery of results. NRCan's success in delivering on each priority will be assessed in the corresponding Departmental Performance Report.

Details on each of the priorities and the plans and commitments for achieving them are presented below.

Priority	Type[1]	Strategic Outcome(s) and/or Program(s)*
Expand markets and global partnerships	Previously committed to	SO 1 Canada's Natural Resource Sectors are Globally Competitive SO 2 Natural Resource Sectors and Consumers are Environmentally Responsible
Description		
Why is this a priority? Market access for natural resource products and services generates significant benefits to Canadians. With slower-than-anticipated economic growth and increasing domestic supply of oil and gas in the United States together with high demand for natural resources in fast-growing economies in the Asia-Pacific region, Canada must focus on expanding and diversifying its markets, for example by supporting the expansion of energy infrastructure, and on positioning itself as a reliable and responsible supplier worldwide. **What are the plans for meeting this priority?** Work supporting this priority will focus on addressing market barriers, promoting Canada as a responsible supplier of natural resource products and services in both existing and emerging markets, while encouraging investment from foreign investors. Partnerships with industry and other government departments will also be leveraged to contribute to the expansion of markets. NRCan will also continue its involvement in various international fora to exercise its leadership and promote Canada's other natural resource interests. **Market Access and Diversification (1.1)** NRCan will address market barriers (e.g., European Union's Fuel Quality Directive) and brand Canada globally as a reliable and responsible resource developer through international bilateral and multilateral engagement, advocacy and communications. The Department will also leverage partnerships with provinces and territories through venues such as the Energy and Mines Ministers' Conference to identify areas for collaboration on issues related to responsible natural resource development, distribution and use, and to align policy and program		

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[1] Type is defined as follows: **previously committed to**—committed to in the first or second fiscal year prior to the subject year of the report; **ongoing**—committed to at least three fiscal years prior to the subject year of the report; and **new**—newly committed to in the reporting year of the RPP or DPR. If another type that is specific to the department is introduced, an explanation of its meaning must be provided.

efforts addressing energy and mining priorities, where appropriate.

In partnership with forest product associations and provincial governments, NRCan will support market development and acceptance activities in offshore markets and in North America to expand opportunities for the export of Canada's forest products. It will provide financial contributions to Canadian forest industry associations to support initiatives to expand exports to international markets and increase the use of wood in North American non-residential construction. It will also provide financial contributions and science-based information to industry partners to support the development and dissemination of information products that promote the environmental reputation of Canada's forest sector in international markets. Also, it will continue to provide expertise to other federal departments in support of Canada's international negotiating positions on trade and environmental issues.

To help increase the participation of Aboriginal people in west coast energy development, the department will engage with Aboriginal peoples on the report of the Special Federal Representative on West Coast Energy Infrastructure, as well as provinces and industry, and identify the most promising avenues for meaningful follow-up.

Investment in Natural Resource Sectors (1.3)

NRCan will promote Canadian best practices in responsible mineral resource governance and activities related to the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development and Corporate Social Responsibility.

Energy-Efficient Practices and Lower-Carbon Energy Sources (2.1)

NRCan will advance Canada's energy and technology interests at environmental and climate change-related international fora (e.g., United Nations Framework Convention on Climate Change, the North American Leaders Summit, and the Clean Energy Ministerial process), with the aim of helping to ensure that Canadian objectives are reflected in the outcomes of the discussions[2].

NRCan will also collaborate with the United States to help ensure that the development of oil and gas resources is carried out in a responsible and sustainable manner and will work together to modernize energy use and efficiency, which could include, for example, collaboration on harmonized energy efficiency performance standards and labeling. NRCan will also continue to support Environment Canada (the lead Department for Canada) on the Clean Energy Dialogue to enhance clean energy technology implementation to reduce greenhouse gases.

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[2] Relates to FSDS Implementation Strategy FSDS IS 1.1.53, which is co-led by Environment Canada

Priority	Type[3]	Strategic Outcome(s) and/or Program(s)*
Unlock resource potential through responsible development	Previously committed to	SO 1 Canada's Natural Resource Sectors are Globally Competitive SO 2 Natural Resource Sectors and Consumers are Environmentally Responsible SO 3 Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Description

Why is this a priority?

The responsible development of Canada's natural resources is a critical contributor to our current and future prosperity. Over the next 10 years, planned investments of about $650 billion in hundreds of major energy, mining and forest sector projects across all regions will spur jobs and economic growth. Seizing this opportunity requires geoscience knowledge, investment, capital, energy and other infrastructure, an efficient and effective regulatory system, and meaningful consultation and engagement with Aboriginal peoples.

What are the plans for meeting this priority?

Efforts supporting this priority will focus on the provision of expertise as well as continuous improvements to the regulatory process and major project reviews. These efforts will encourage investments in the natural resource sectors, while facilitating the responsible management of those resources. Targeted promotion efforts will also be undertaken to attract foreign direct investment and to address market access issues.

Market Access and Diversification (1.1)

NRCan will update the Government of Canada's regulatory framework governing energy resources by 1) advancing goal-oriented regulation in support of responsible resource development for offshore petroleum and developing modern occupational health and safety regulations for the Atlantic Accord areas, in partnership with the provinces of Nova Scotia and Newfoundland and Labrador; 2) supporting the amendment of the National Energy Board's (NEB) Damage Prevention Regulations to ensure the effective management of safety and environmental protection for work near pipelines; 3) providing policy support to the amendment of the NEB Part VI (Oil and Gas) Regulations to update the NEB's oil and gas import and export regulatory framework; 4) establishing regulations pursuant to the *Nuclear Liability and Compensation Act* to designate nuclear installations and the operators for those installations, and prescribe classes of nuclear installations and the amounts of liability applicable to those classes; and, 5) developing new regulations under the National Energy Board Act to clarify liability and ensure pipelines have sufficient financial capacity to respond to potential incidents.

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[3] Type is defined as follows: **previously committed to**—committed to in the first or second fiscal year prior to the subject year of the report; **ongoing**—committed to at least three fiscal years prior to the subject year of the report; and **new**—newly committed to in the reporting year of the RPP or DPR. If another type that is specific to the department is introduced, an explanation of its meaning must be provided.

Innovation for New Products and Processes (1.2)

NRCan will contribute to increasing Aboriginal participation in major resource projects relating to forestry by enhancing the depth of the Aboriginal capacity to do so and seize new opportunities. The Department will also participate in the Federal Framework for Aboriginal Economic Development through its funding program, the Strategic Partnerships Initiative.

Investment in Natural Resource Sectors (1.3)

As part of the implementation of the plan for Responsible Resource Development, NRCan will advance system-wide improvements to the federal regulatory system, and ensuring consistency across federal legislative, regulatory, policy and program development initiatives. This will also include the pipeline and marine safety systems.

NRCan will further support investments by providing expertise to increase industry and government knowledge of untapped and new sources of energy. To this end, it will deliver public geoscience information and knowledge on Canada's Northern regions and in particular areas of high mineral and energy resource potential. NRCan will also develop proposals to pursue its work on geoscience in support of effective and efficient mineral exploration.

NRCan will also promote Canada as a competitive destination for foreign direct investment by highlighting Canada's positive investment climate for mineral capital.

Energy-Efficient Practices and Lower-Carbon Energy Sources (2.1)

The Department will manage the loan guarantee for the Lower Churchill River hydroelectric projects.

Technology Innovation (2.2)

NRCan will support responsible resource management by demonstrating key environmental technologies for green mining to industry and other stakeholders, including the feasibility of developing productive agricultural land uses on mine waste.

Responsible Natural Resource Management (2.3)

To support responsible resource management in the forest sector, NRCan will conduct and synthesize science-based research on forest ecosystems. It will also produce estimates of forest-related carbon and greenhouse gas emissions to be used in Canada's 2014 greenhouse gas National Inventory Report. This report will inform policy for above-ground carbon-related issues that affect forest health.

Protection for Canadians and Natural Resources (3.1)

NRCan will deliver public geoscience, tools, information and knowledge to federal and territorial governments to increase their understanding of changes to the climate and how they impact Northern infrastructure requirements and constraints, such as those imposed by changes to permafrost.

Priority	Type[4]	Strategic Outcome(s) and/or Program(s)*
Innovate for competitiveness and environmental performance	Previously committed to	SO 1 Canada's Natural Resource Sectors are Globally Competitive SO 2 Natural Resource Sectors and Consumers are Environmentally Responsible

Description

Why is this a priority?

Innovation is critical to both resource sector competitiveness and improved environmental performance, contributing to increased productivity, lower costs, value-added and new products, and helping to meet environmental standards and regulations.

What are the plans for meeting this priority?

Commitments supporting this priority will focus on research, development and demonstration projects within government as well as in partnership with industry, academia, and other government departments to foster innovation in the natural resource sectors.

Market Access and Diversification (1.1)

NRCan will lead the implementation of a Government-owned, Contractor-operated model for Atomic Energy of Canada Limited's (AECL's) Nuclear Laboratories.

Innovation for New Products and Processes (1.2)

Through programs such as the Forest Innovation Program, NRCan will support the forest sector's efforts to develop opportunities in bioenergy, bio-products and next generation building materials and to provide more value to its products.

The Department will continue to work through the Federal Committee on Geomatics and Earth Observation to ensure that the way government shares, uses and manages its location-based information (i.e., geospatial information) is appropriate for new uses.

Energy-Efficient Practices and Lower-Carbon Energy Sources (2.1)

NRCan will bolster industry capacity to produce renewable forms of energy by supporting the production of up to a maximum of 15.7 terawatt-hours of clean electricity through its ecoENERGY for Renewable Power and Wind Power Production Incentive programs and by supporting Canada's alternative fuel production capacity for renewable alternatives to gasoline and diesel through its ecoENERGY for Biofuels program.

Further, through its ecoENERGY Efficiency program, NRCan will support Canadian consumers and businesses in reducing energy consumption by aiming to contribute 25-32 petajoules of energy savings, which is equivalent to the energy required by 240,000 to 300,000 households over one year (excluding transportation requirements), and by providing training sessions on energy efficient products and practices for 200,000 individuals in the transportation sector, 800 in the buildings sector, 500 in the housing sector, and 750 in the industrial sector.

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[4] Type is defined as follows: **previously committed to**—committed to in the first or second fiscal year prior to the subject year of the report; **ongoing**—committed to at least three fiscal years prior to the subject year of the report; and **new**—newly committed to in the reporting year of the RPP or DPR. If another type that is specific to the department is introduced, an explanation of its meaning must be provided.

NRCan will also complete a policy paper advancing knowledge of policy options for administering marine renewable energy in the federal offshore, through its Marine Renewable Energy Enabling Measures program.

Technology Innovation (2.2)

To further support environmental performance, NRCan will implement clean energy technology projects with industry, academia and other government departments and agencies to research, develop and demonstrate innovative solutions to environmental challenges in the energy sector.

NRCan will also present to industry one advanced material technology to be identified for implementation in the design or processing components of energy efficient vehicles produced in North America. Furthermore, it will develop at least one material solution for key components in the Canadian Generation-IV Supercritical Water-cooled Reactor concept.

Priority	Type[5]	Strategic Outcome(s) and/or Program(s)*
Leverage S&T knowledge for safety and security risk management	Previously committed to	SO 2 Natural Resource Sectors and Consumers are Environmentally Responsible SO 3 Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Description

Why is this a priority?

NRCan has an important role in helping prevent and reduce the environmental impacts of past, present and future natural resource development, and preparing for and managing threats and emergencies associated with natural and man-made hazards, including earthquakes, forest fires and industrial incidents. Furthermore, NRCan plays a key role in providing up-to-date information on our natural resources and landmass through Open Government, a whole-of-government initiative to ensure Canadians have easy access to the right information, in the right format, in a timely manner.

What are the plans for meeting this priority?

In 2014-15, the key commitments that will support this priority will focus on interdepartmental emergency management, nuclear waste management, climate change adaptation and the dissemination of expertise to support the management of land boundaries and natural hazards (e.g., earthquakes, forest pests).

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[5] Type is defined as follows: **previously committed to**—committed to in the first or second fiscal year prior to the subject year of the report; **ongoing**—committed to at least three fiscal years prior to the subject year of the report; and **new**—newly committed to in the reporting year of the RPP or DPR. If another type that is specific to the department is introduced, an explanation of its meaning must be provided.

Responsible Natural Resource Management (2.3)

To support nuclear waste management, NRCan will complete the commissioning of new water treatment plants at the New Port Hope and Port Granby facilities. The Department also expects to tender and issue a contract for construction of the Port Granby Long-Term Waste Management Facility.

Regarding the Nuclear Legacy Liabilities Program, NRCan will complete activities to support the transition of nuclear decommissioning and waste management responsibilities at the Nuclear Laboratories to the Government-owned, Contractor-operated management model.

Protection for Canadians and Natural Resources (3.1)

NRCan will pursue research for early intervention in the event of a spruce budworm outbreak and will report the results to clients and stakeholders. In addition, NRCan will co-host the Third Biennial Wildland Fire Canada Conference and produce an integrated assessment of the implications of climate change on Canada's forest sector, using a range of future climate scenarios.

Through the national climate change Adaptation Platform, NRCan will continue to engage the provinces, territories, and the public and private sectors to develop and exchange knowledge and tools on thematic areas, including coastal management, mining and energy, in support of the development of effective climate change adaptation strategies for Canada's regions.

NRCan will collaborate with Public Safety Canada and other levels of government to develop Emergency Management Plans and participate in the development and execution of interdepartmental emergency management protocols and exercises.

NRCan will also continue to administer the *Explosives Act*, while implementing the modernized Explosives Regulations, 2013, including its new security provisions.

Landmass Information (3.2)

The Department will collect and disseminate geoscience, geodetic and geospatial information (e.g., digital mapping, satellite imagery) to support the management of Canada's natural resources and land.

NRCan will also complete 100% of annual survey obligations as defined in land claim legislation and agreements for Northern Canada and for First Nations Land Management and Additions to Reserve in southern Canada.

Priority	Type[6]	Strategic Outcome(s) and/or Program(s)*
Increase the effectiveness and efficiency of NRCan operations	Previously committed to	Program 4.1 – Internal Services

Description

Why is this a priority?

NRCan strives to serve Canadians in the most effective and efficient manner possible. To this end, it is continuously improving and transforming how it delivers on its science and policy mandates and manages its assets. It also supports the implementation of government-wide initiatives to improve efficiency, such as Shared Services Canada and the consolidation of pay and benefits.

What are the plans for meeting this priority?

NRCan will undertake steps to implement its Blueprint 2020 Action Plan aligned with the guiding principles of Blueprint 2020 to achieve the vision for a revitalized, world-class public service.

The Department will implement a revised, proactive departmental approach to manage intellectual property. It will document and track NRCan's Signature S&T projects, including development of a performance measurement framework to better assess and convey the relevance, quality and impact of the Department's S&T expertise. And opportunities will be identified to establish new domestic and international S&T partnerships.

NRCan will continue to implement the Common Human Resources Business Process Initiative, a government-wide initiative to revitalize human resource services and systems through the standardization of processes and tools. This year, under the Initiative, new tools will be developed to support the implementation of performance management systems and the provision of human resources-related information within NRCan to enhance consistency and efficiency. The Department will also develop tools and resources to complement the NRCan Values and Ethics Code.

NRCan will closely monitor financial pressures, particularly those associated with its real property assets. To this end, it will explore options related to the possible disposal of surplus property.

NRCan will complete the implementation of the GCDOCs project, which will establish a new platform for the management of electronic records at NRCan. It will also improve a series of internal business processes in various areas, from corporate planning and reporting to travel booking and procurement. Finally, it will put in place processes and systems to better track the efficiency of its programs.

Finally, the Department will continue to support the Government of Canada's web renewal initiative, contributing to an improved user-centric Web presence for Canadians.

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[6] Type is defined as follows: **previously committed to**—committed to in the first or second fiscal year prior to the subject year of the report; **ongoing**—committed to at least three fiscal years prior to the subject year of the report; and **new**—newly committed to in the reporting year of the RPP or DPR. If another type that is specific to the department is introduced, an explanation of its meaning must be provided.

Risk Analysis

The Department manages a range of risks, both strategic and operational, which are contained in its Corporate Risk Profile. Risk identification is a key part of NRCan's planning process, and risks are important drivers in the establishment of priorities for the Department.

Three of these risks—Market Access and Investment Climate, Hazards and Emergency Management, and Finance—are discussed here.

Resource context

Canada has vast energy, mineral and forest resources, which are critical to its economic prosperity. This resource wealth indirectly and directly contributes to almost one-fifth of the country's nominal Gross Domestic Product and close to 1.8 million jobs. The importance of resources to the Canadian economy is projected to grow: for example, oil sands crude oil production is expected to triple over the next 20 years, from 1.8 million barrels per day to 5.2 million barrels per day by 2030.

However, the realization of this resource potential is not a sure thing. With a domestic supply far outpacing domestic demand, Canada must ensure that it can access foreign markets if it is to maintain and grow the economic benefits from its resource endowment. As the United States is expected to be almost self-sufficient in energy, in net terms, by 2035, Canadian export destinations must increasingly be outside North America. Countries such as China, which has already surpassed the United States as the world's largest energy consumer, and India, slated to become the third largest energy consumer by 2030, present the most logical opportunities for Canada to expand markets. In October 2013, Canada and the European Union announced an agreement in principle on a Canada-European Comprehensive Economic and Trade Agreement (CETA) that will significantly boost two-way trade and investment. Once the CETA comes into force, it will immediately eliminate all tariffs on Canadian forest, minerals, metals and energy products and will create bilateral dialogues in forestry and raw materials.

A number of factors influence the ability of natural resource sectors to get resources to market, and each of these contribute to the resource-based risks faced by Canada and managed, in part, by NRCan. These include Canada's investment climate, the infrastructure to support harvesting resources and transporting them to market, and Canada's international reputation in those potential markets. These risk drivers are discussed below, while NRCan's strategy for managing them is addressed in the table following this section.

Canada must maintain an appropriate investment climate to make investment in resource development attractive. This means that financing for capital resource projects must be available and that business cases for companies to develop a given resource can be made and supported by Canadians. A lack of public support for resource projects of regional or national significance could preclude industry from conducting operations within Canada or within a particular province.

A lack of critical infrastructure to bring resources to terminals or ports is another risk for the natural resource sectors. If pipelines, rail networks and roads, as well as the support to maintain them as safe and reliable transportation routes, are not sufficient then the opportunities for the natural resource sectors will be diminished. Furthermore, if transportation infrastructure is not managed with the utmost regard to safety, the public support for natural resource projects, or even the entire industry, could decrease.

Finally, Canadian natural resources must have export destinations. The risk drivers articulated above all influence whether a given resource can be brought to a foreign market and sold. As well, Canada's international reputation relating to, for example, its progress in meeting environmental targets could impact the acceptance of Canadian natural resource exports by other countries.

NRCan's risk context

From an operational perspective, one of the Department's primary challenges relates to managing its financial resources. Specific drivers of this risk include:

1) NRCan must continue to find efficiencies in its operations.
2) A significant portion of NRCan's budget is temporary, which creates additional management challenges as programs sunset.
3) NRCan must address financial pressures resulting from its aging real property assets.

These challenges impact NRCan's ability to deliver on its priorities and core mandate, and manage the risks articulated above.

Risk	
Risk Response Strategy	**Link to Program Alignment Architecture**
Market Access and Investment Climate	
NRCan will continue to manage this risk through working with several other federal departments, provincial and territorial governments and representatives from the private sector to 1) promote and brand Canada abroad as a reliable and environmentally responsible trade partner, including through focused, Ministerial missions; 2) engage with Aboriginal peoples and other Canadians on the potential benefits as well as on approaches to mitigate risks associated with resource development; 3) make the regulatory review process at home more predictable and efficient while ensuring sound environmental stewardship; and 4) develop appropriate regulations. In 2014-15, NRCan will: • As part of the implementation of the plan for Responsible Resource Development, advance system-wide improvements to the federal	1.1.2 – Forest Products Market Access and Development 1.1.3 – Energy Market Regulation and Information 1.3.1 – Mineral Investment 1.3.5 – Major Projects Management Office Initiative

regulatory system, and ensure consistency across federal legislative, regulatory, policy and program development initiatives. This will also include the pipeline and marine safety systems. - Address market barriers (e.g., European Union's Fuel Quality Directive) and brand Canada globally as a reliable and responsible resource developer through international bilateral and multilateral engagement, advocacy and communications. These and other commitments that help mitigate this risk are described throughout the RPP in the sections identified at right.	2.2.1 – Materials for Energy 2.3.1 – Forest Ecosystems Science and Application
Hazards and Emergency Management	
NRCan supports the management of emergencies, proactively and reactively, thereby helping to ensure the safety and security of Canadians. This will continue to be accomplished through the provision of timely and accessible information on Canada's natural resources and landmass to be used by the public and stakeholders to prepare for and respond to emergencies. The Department also conducts risk assessments that support the development of policies, programs and regulations and ensures learning from incidents to promote the building of resilience within the natural resource sectors. In 2014-15, NRCan will: - Co-host the Third Biennial Wildland Fire Canada Conference to re-engage and strengthen working relationships between NRCan's Canadian Forest Service (CFS) and other Canadian fire management agencies and to facilitate further development of CFS fire research and fire management information systems. - Collaborate with Public Safety Canada and other levels of government to develop Emergency Management Plans and participate in the development and execution of interdepartmental emergency management protocols and exercises. - Support Privy Council Office in the development of a common operating picture for the Federal Departmental Security Office community in coordination with the Federal Committee on Geomatics and Earth Observation, through its geomatics expertise. - Assist Canada in its role as chair of the Arctic Council, from 2013-15, under the theme of development for people of the North, focusing on responsible Arctic resource development, safe Arctic shipping, and sustainable circumpolar communities. These and other commitments that help mitigate this risk are described throughout the RPP in the sections identified at right.	2.3.4 – Radioactive Waste Management 2.3.5 – Earth Observation for Responsible Resource Development 3.1.2 – Materials and Certification for Safety and Security 3.1.3 – Forest Disturbances Science and Application 3.1.5 – Geohazards and Public Safety 3.2.1 – Essential Geographic Information 4.1 – Internal Services

<table>
<tr><th colspan="2">Finance</th></tr>
<tr><td>To manage its financial risks, NRCan continues to closely monitor its operating budget by conducting monthly analyses of trends and forecasting of its salary and non-salary expenditures, and comprehensive quarterly reviews.

In 2014-15, NRCan will:

- Improve internal business processes by increasing the efficiency and effectiveness of service and operations in various areas, such as human resources, procurement, and financial reporting and procedures.
- Closely monitor financial pressures, particularly those associated with its real property assets. To this end, it will explore options related to the possible disposal of surplus property.

These and other commitments that help mitigate this risk are described in the section identified at right.</td><td>4.1 – Internal Services</td></tr>
</table>

Planned Expenditures

Budgetary Financial Resources (Planned Spending—dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
2,534,650,611	2,534,650,611	2,290,420,322	2,325,660,365

Human Resources (Full-time equivalents—FTEs)

2014-15	2015-16	2016-17
3,902	3,874	3,603

Budgetary Planning Summary for Strategic Outcome(s) and Program(s) (dollars)

Strategic Outcome(s), Program(s) and Internal Services	2011-12 Expenditures	2012-13 Expenditures	2013-14 Forecast Spending	2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
Strategic Outcome 1: Canada's Natural Resource Sectors are Globally Competitive							
Market Access and Diversification	*	55,420,361	58,921,793	56,085,530	56,085,530	43,497,846	41,589,231
Innovation for New Products and Processes	*	93,948,144	104,217,164	67,598,586	67,598,586	66,175,755	64,218,235
Investment in Natural Resource Sectors	*	73,319,149	62,435,605	55,641,175	55,641,175	53,472,654	54,134,355
Statutory Programs – Atlantic Offshore**	*	684,964,769	850,666,916	1,293,425,000	1,293,425,000	1,328,316,000	1,518,474,000
Strategic Outcome 1 Subtotal	**1,439,515,779**	**907,652,423**	**1,076,241,478**	**1,472,750,291**	**1,472,750,291**	**1,491,462,255**	**1,678,415,820**
Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible							
Energy-Efficient Practices and Lower-Carbon Energy Sources	*	342,424,547	318,562,949	464,018,045	464,018,045	255,596,149	188,718,695
Technology Innovation	*	152,200,348	162,607,927	150,090,774	150,090,774	122,495,639	73,422,952
Responsible Natural Resource Management***	*	236,874,939	269,595,183	179,373,009	179,373,009	181,701,711	167,424,924
Strategic Outcome 2 Subtotal	**1,522,396,647**	**731,499,834**	**750,766,059**	**793,481,827**	**793,481,827**	**559,793,499**	**429,566,570**
Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks							
Protection for Canadians and Natural Resources	*	55,604,146	64,918,851	55,878,528	55,878,528	52,950,476	46,610,275
Landmass Information***	*	90,961,341	73,852,417	53,620,414	53,620,414	45,306,771	44,608,900

Strategic Outcome 3 Subtotal	**138,514,561**	**146,565,487**	**138,771,268**	**109,498,941**	**109,498,941**	**98,257,247**	**91,219,175**
Internal Services Subtotal	**251,745,618**	**181,093,220**	**203,844,318**	**158,919,551**	**158,919,551**	**140,907,322**	**126,458,800**
Total	**3,352,172,605**	**1,966,810,964**	**2,169,623,123**	**2,534,650,611**	**2,534,650,611**	**2,290,420,322**	**2,325,660,365**

* **Actual Spending for 2011-12:** NRCan changed its PAA for 2012-13. Actual spending for 2011-12 reflects the legacy PAA structure which was as follows:

- Strategic Outcome 1: 1.1 Economic Opportunities for Natural Resources: $1,439,492,491 (includes the Statutory Programs related to the Atlantic Offshore of $1,222,730,140); 1.2 Natural Resource-based Communities: $23,288.
- Strategic Outcome 2: 2.1 Clean Energy: $1,323,313,646; 2.2 Ecosystem Risk Management: $199,083,001.
- Strategic Outcome 3: 3.1 Adapting to a Changing Climate and Hazard Risk Management: $50,834,868; 3.2 Natural Resource and Landmass Knowledge and Systems: $87,235,443; 3.3 Geomatics Canada Revolving Fund: $444,250.

** **Statutory Programs:** As per the various Atlantic Offshore Accords, the Government of Canada receives royalties for offshore oil and gas production and subsequently pays an equal amount to the provinces of Nova Scotia and Newfoundland and Labrador.

*** There was a slight change in the 2013-14 PAA structure at the sub-activity level that affects this table. A portion of expenditures previously reported under Landmass Information under Strategic Outcome 3 is now being reported under Responsible Natural Resource Management under Strategic Outcome 2. In 2012-13 (nil in 2011-12) expenditures in the amount of $560,000 have not been adjusted to transfer the expenditures from Landmass Information to Responsible Natural Resource Management as it was not considered a material amount.

Planned spending declines by $209 million, or 8%, from 2014-15 to 2016-17. This is attributable mainly to:

- An increase in agreements between the Government of Canada and the provinces of Nova Scotia and Newfoundland and Labrador under the Offshore Atlantic Accords. As the majority of the payments are related to revenues, the planned spending trend fluctuates depending on a number of factors such as production and pricing levels.
- A decline in program funding profile for several programs, the most significant of which are:
    - ecoENERGY for Biofuels;
    - Wind Power Production Incentive;
    - Port Hope Area Initiative; and,
    - Forest Innovation and Expanding Market Opportunities
- The sunsetting of several programs or initiatives in 2014-15 and 2015-16, including:
    - Clean Energy Fund;
    - ecoENERGY Innovation Initiative;
    - ecoENERGY Efficiency;
    - Grant to the Canada Foundation for Sustainable Development Technology;
    - Stakeholder Engagement Outreach and Advertising;
    - Climate Change Impacts and Adaptation;

  - Satellite Station Facilities;
  - Isotope Technology Acceleration Program; and
  - Major Projects Management Office Initiative.

NRCan recognizes that some of the aforementioned sunsetting programs may continue, which depending on the amount of renewal, could level the spending trend in temporary funding over the period 2014-15 to 2016-17.

For the explanation on variances in actual expenditures and forecasted spending between 2011-12 and 2013-14, refer to the analysis included in the Departmental Spending Trend section.

Alignment to Government of Canada Outcomes

2014-15 Planned Spending by Whole-of-Government-Framework Spending Area (dollars)

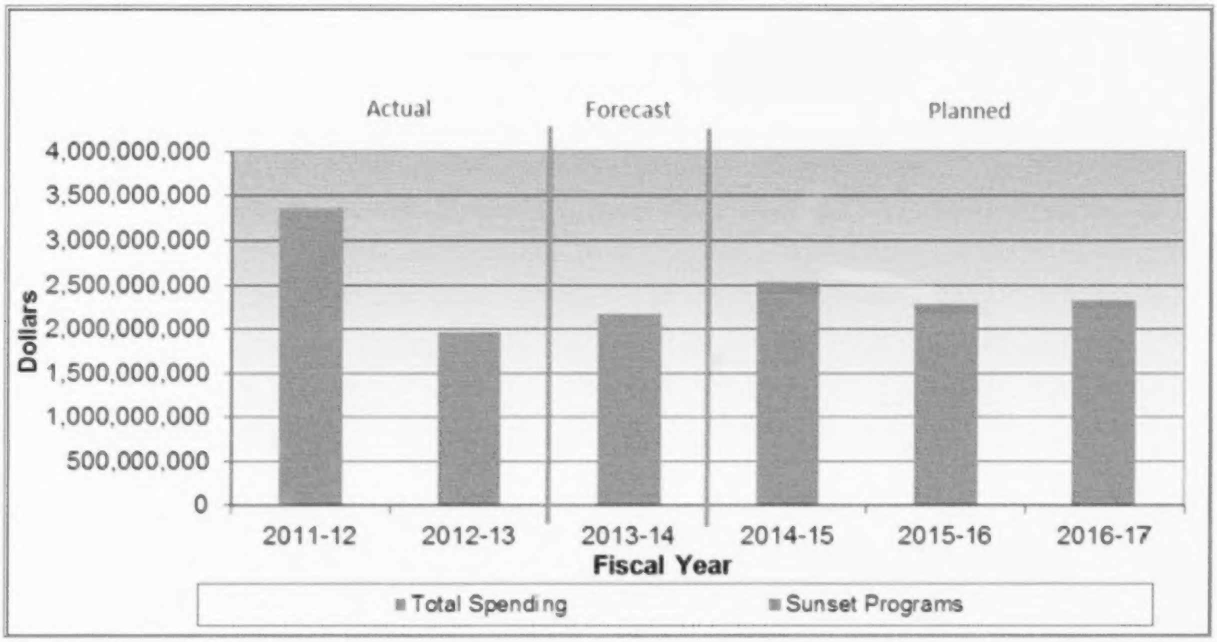
Strategic Outcome	Program	Spending Area	Government of Canada Outcome	2014-15 Planned Spending
1 Canada's Natural Resource Sectors are Globally Competitive	1.1 Market Access and Diversification	Economic Affairs	Strong Economic Growth	56,085,530
	1.2 Innovation for New Products and Processes	Economic Affairs	Strong Economic Growth	67,598,586
	1.3 Investment in Natural Resource Sectors	Economic Affairs	Strong Economic Growth	55,641,175
	1.4 Statutory Programs – Atlantic Offshore	Economic Affairs	Strong Economic Growth	1,293,425,000
2 Natural Resource Sectors and Consumers are Environmentally Responsible	2.1 Energy-Efficient Practices and Lower-Carbon Energy Sources	Economic Affairs	A Clean and Healthy Environment	464,018,045
	2.2 Technology Innovation	Economic Affairs	A Clean and Healthy Environment	150,090,774
	2.3 Responsible Natural Resource Management	Economic Affairs	A Clean and Healthy Environment	179,373,009
3 Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks	3.1 Protection for Canadians and Natural Resources	Economic Affairs	A Safe and Secure Canada	55,878,528
	3.2 Landmass Information	Economic Affairs	A Safe and Secure Canada	53,620,414

Total Planned Spending by Spending Area (dollars)

Spending Area	Total Planned Spending
Economic Affairs	2,534,650,611
Social Affairs	-
International Affairs	-
Government Affairs	-

Departmental Spending Trend

Departmental Spending Trend Graph



For the fiscal year 2011-12 and 2012-13, actual spending represents the actual expenditures as reported in the Public Accounts. For fiscal year 2013-14, the forecast spending represents forecasted expenditures as of the end of November 2013. For the period 2014-15 to 2016-17, the planned spending reflects approved funding by Treasury Board to support the departmental strategic outcomes.

As indicated in the chart above, NRCan's forecast spending for 2013-14 is \$2.170 billion, a decrease of \$1.182 billion, or 35%, from 2011-12 spending of \$3.352 billion. This decrease is mainly due to:

- A reduction under the Offshore Atlantic Accords (Accords), which are associated with offshore agreements between the Government of Canada and the provinces of Nova Scotia and Newfoundland and Labrador. As the majority of the payments are related to revenues, the actual and forecasted spending trend fluctuates depending on a number of factors such as production and pricing levels.
- A variation in program spending:

    - Decrease in the Clean Energy Fund;
    - Decrease in ecoENERGY for Biofuels;
    - Increase in ecoENERGY Innovation Initiative;
    - Increase for the Investment in Forest Industry Transformation Program; and
    - Increase in ecoENERGY for Renewable Power.
- The sunsetting of the following programs in 2011-12:
    - Pulp and Paper Green Transformation Program;
    - ecoENERGY Retrofit – Homes Grant Program; and
    - ecoENERGY Technology Initiative.
- The saving measures announced in Budget 2012.

For the explanation on variances in planned spending between 2014-15 and 2016-17, refer to the analysis included in the Planned Expenditures section.

Estimates by Vote

For information on NRCan's organizational appropriations, please see the 2014-15 Main Estimates publication.[xvi]

Contribution to the Federal Sustainable Development Strategy (FSDS)

The 2013-16 Federal Sustainable Development Strategy (FSDS)[xvii], tabled on November 4, 2013, guides the Government of Canada's 2013-16 sustainable development activities. The FSDS articulates Canada's federal sustainable development priorities for the three year period, as required by the *Federal Sustainable Development Act*.

NRCan contributes to the following themes of the FSDS as denoted by the visual identifiers below:

a **Theme I** Addressing Climate Change and Air Quality
w **Theme II** Maintaining Water Quality and Availability
n **Theme III** Protecting Nature and Canadians
g **Theme IV** Shrinking the Environmental Footprint - Beginning with Government

Goal 1 of Theme I aims to mitigate the effects of climate change and reduce greenhouse gas emission levels. This goal is consistent with NRCan's second strategic outcome, namely *Natural Resource Sectors and Consumers are Environmentally Responsible*. The commitments supporting this goal fall under the following sub-programs:

- 2.1.1 – Renewable Energy Deployment
- 2.1.2 – Support for Clean Energy Decision-Making
- 2.1.3 – Alternative Transportation Fuels
- 2.1.4 – Energy Efficiency
- 2.2.1 – Materials for Energy
- 2.2.2 – Green Mining
- 2.2.3 – Clean Energy Science and Technology

NRCan will also undertake work to specifically address the impacts of climate change through commitments aligned to sub-program 3.1.4 – Climate Change Adaptation.

Goal 3 of Theme II seeks to protect and enhance water so that it is clean, safe and secure for all Canadians and supports healthy ecosystems. This goal is consistent with NRCan's second strategic outcome, namely *Natural Resource Sectors and Consumers are Environmentally Responsible.* The commitments that support this goal fall under the following sub-programs:

- 2.3.2 – Groundwater Geoscience
- 2.3.4 – Radioactive Waste Management

Goal 4 of Theme III is related to NRCan's third strategic outcome, namely, *Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks*. The commitments support this goal fall under the following sub-programs:

- 3.1.1 – Explosives Safety and Security
- 3.1.2 – Materials and Certification for Safety and Security
- 3.1.3 – Forest Disturbances Science and Application
- 3.1.5 – Geohazards and Public Safety

NRCan will also conduct work on sustainable forest management, which is a target under Goal 5 *Efficient economic and ecological use of resources – Production and consumption of biological resources*.

Goal 4 of Theme IV aims to reduce the carbon footprint and energy consumption of federal operations. NRCan will support this through commitments carried out under program activity 4.1 – Internal Services.

All of the commitments under these sub-programs are further explained in Section II of this document.

NRCan also ensures that its decision-making process includes consideration of the FSDS goals and targets through the Strategic Environmental Assessment (SEA) process. An SEA for policy, plan or program proposals includes an analysis of the impacts of the given proposal on the environment, including on the FSDS goals and targets. The results of NRCan's Detailed SEAs are made public when respective initiatives are announced, demonstrating that environmental factors were integrated into the decision-making process.

For additional details on NRCan's activities to support sustainable development, see Section II of this RPP and the departmental website. For complete details on the Strategy, please see the Federal Sustainable Development Strategy[xviii] website.

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Section II: Analysis of Program(s) by Strategic Outcome(s)

This section provides information on programs that are critical to the realization of NRCan's strategic outcomes and priorities for 2014-15.

More information about these programs and initiatives, as well as supporting evidence from internal evaluations and audit reports, can be found on NRCan's website[xix].

Strategic Outcome 1: Canada's Natural Resource Sectors are Globally Competitive

Description: Canada is a major producer and exporter of natural resources. Being competitive in Canadian and foreign markets is imperative to the nation's economic growth. The objective of this Strategic Outcome (SO) is to help Canada's natural resource sectors become more globally competitive by adapting to the continuously changing conditions of success. This will be achieved by supporting the natural resource sectors to expand and diversify their markets to respond to the high demand from emerging economies, and diversify their product offerings to remain innovative and competitive.

Program 1.1: Market Access and Diversification

Description: Canada's natural resource sectors face two key barriers to market access and diversification: 1) trade and policy barriers, and 2) lack of awareness of Canada's natural resource products. The objectives of this Program are to break down those barriers and support the development and expansion of markets for Canadian natural resource products by making information available to Canadians, supporting negotiations to reduce trade barriers, and ensuring that regulations are up to date. This helps maintain natural resource sectors' access to existing markets and increases their access to new market segments.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
56,085,530	56,085,530	43,497,846	41,589,231

Human Resources (FTEs)

2014-15	2015-16	2016-17
246	248	227

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Natural resource sectors have increased access to existing markets.	Natural resource sectors have access to markets as defined by exports of energy products, mineral and metal products and forest products.	Meet or exceed baseline percentage of market access (baseline to be established in 2013-14)	March 31, 2015
Natural resource sectors have increased access to new market segments.	Natural resource sectors have access to new market segments as defined by exports of energy products, mineral and metal products and forest products.	Meet or exceed baseline percentage of access to new market segments (baseline to be established in 2013-14)	March 31, 2015

Planning Highlights

To maintain Canada's position as a global mining leader, NRCan will continue to diversify markets for its minerals and metals commodities, as well as related mining services, technologies and know-how. NRCan will also work internationally to build capacity within emerging economies to promote the development of regulatory environments that are conducive to Canadian mining investment and with companies to promote ongoing adoption of corporate social responsibility practices.

The forest sector faces competition from emerging producers of wood and needs to diversify its exports to a greater market base in order to stabilize them in times of cyclical changes in key traditional markets. As a result, NRCan will support wood products associations in their efforts to increase the forest sector's access to new markets and to develop new market segments such as in the non-residential and mid-rise sector. The energy sector contends with international barriers, such as the European Union's Fuel Quality Directive. In response, NRCan will undertake promotion efforts to position Canada as a responsible resource developer, for example, by providing science-based information to support the environmental reputation of Canada's forest sector. It will pursue opportunities for domestic inter-governmental cooperation and international collaboration. NRCan will also update the regulatory framework that governs Canada's energy sources.

Sub-Program 1.1.1: Mineral and Metal Markets Access and Development

Description: Canadian producers of minerals and metals require access to export markets since domestic production exceeds domestic demand for many commodities. However, tariffs and non-tariff barriers can constrain exports, as can policies and measures that reduce demand for minerals, metals and products containing metals, and certification schemes that discriminate against Canadian producers. Through this Sub-program, NRCan administers the *Export and Import of Rough Diamonds Act* and regulations that implement Canada's international obligations under the Kimberley Process Certification Scheme, ensuring market access for Canadian diamond producers and users. Also through this Sub-program, NRCan provides expertise to assist with the establishment of global partnerships to advance the competitive position of Canada's minerals and metals sector as a responsible source of supply.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
1,953,676	1,965,761	1,965,761

Human Resources (FTEs)

2014-15	2015-16	2016-17
4	4	4

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Rough diamond market access is supported through the efficient implementation of Canada's international obligations under the Kimberley Process Certification Scheme	Percentage of Kimberley Process export certificates issued within one business day of the receipt of a completed and valid application	97%	March 31, 2015

Planning Highlights

To address barriers that Canadian diamond producers face and ensure access to international markets, NRCan will continue to implement Canada's international obligations under the Kimberly Certification process. It will ensure that Kimberley Process export certificates are issued within one business day of receipt of a completed and valid application. NRCan will also provide advice to the Minister and other government departments and agencies to support decision-making on minerals and metals issues, with the aim of advancing global partnerships and bolstering Canada's competitive position as a supplier of minerals and metals.

Sub-Program 1.1.2: Forest Products Market Access and Development

Description: Canada's forest sector has traditionally relied heavily on exports of wood for residential construction in the United States. To maximize value from its resource, Canada must develop new forest products and end-uses in existing markets, and diversify its geographical markets. To do so, it must reduce barriers to market access posed by trade restrictions, tariffs, regulations and misconceptions of the environmental record of Canada's forest sector and its products. Through this Sub-program, NRCan provides financial contributions to Canadian forest industry associations to support initiatives to expand exports to international markets and increase the use of wood in North American non-residential construction. It also provides financial contributions and science-based information to industry partners to support the development and dissemination of information products that promote the environmental reputation of Canada's forest sector in international markets. Also, it provides expertise to other federal departments in support of Canada's international negotiating positions on trade and environmental issues. This Sub-program includes two programs: Expanding Market Opportunities and Implementation of the International Climate Change Strategy and continued engagement and alignment with the United States, including the Clean Energy Dialogue.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
21,919,975	21,019,975	20,611,361

Human Resources (FTEs)

2014-15	2015-16	2016-17
73	74	67

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Forest industry has increased sales of Canadian wood products in international markets	Diversity of markets for Canadian wood products Measure: Using the change in the values of the Herfindahl Index to measure Canada's success in diversifying its wood product exports away from one core market (i.e., the United States) and towards offshore markets over time	Favourable yearly average against 2011 base value of 0.397 The closer the value is to 0, the more a country (i.e. Canada) diversified its exports away from dependency on one key market	March 31, 2017
	Dollar value of wood product sales in targeted offshore markets (China, Korea, Japan and Europe (EU 27)) and other new emerging markets (e.g., India, Middle East)	10% increase over 2011 base year value of $3.1 billion for targeted offshore markets and $99.3 million for new emerging markets	March 31, 2017
Forest industry has increased sales of Canadian wood products in new market segments	Dollar value of wood products used in non-residential construction projects built with wood as opposed to traditional means (Canada and US)	10% increase over 2011 base year value of $130.3 million	March 31, 2017
Stakeholders in targeted international markets have positive perception of Canadian forest practices and products	Percentage of targeted stakeholders who have a positive perception of Canadian forest practices and products	Majority (51%) of targeted stakeholders have positive perceptions	March 31, 2017

Planning Highlights

To support the competitiveness of wood products and access to new market segments, NRCan will work in partnership with forest product associations and with other levels of government to carry out market development and acceptance activities. One such activity includes the dissemination of information to promote the environmental reputation of Canada's forest sector, particularly in emerging markets and in North America. This work will ultimately contribute to increasing the positive perception of Canadian forest practices and products among international stakeholders.

NRCan will analyze key forest carbon options for climate change mitigation, ensure that Canada's international climate change objectives related to forests are advanced in international meetings, and continue to develop Canada's National Forest Carbon Monitoring, Accounting and Reporting System to provide annual estimates of the inventory of forest-related greenhouse gas emissions (FSDS Implementation Strategy 1.1.57).

Sub-Program 1.1.3: Energy Market Regulation and Information

Description: Canada realizes many benefits as a result of robust energy markets and strong trade in energy resources. Ensuring these benefits continue to contribute to the broader economy requires regular assessment, analysis and monitoring of Canadian energy resources, including infrastructure and regulations. Through this Sub-program, NRCan aims to foster a competitive Canadian energy sector by working with provinces and territories, and internationally, to articulate Canada's approach to the management of energy resources. It assesses and updates (when necessary) federal energy regulations and policies relating to such areas as offshore oil and gas, pipelines, and nuclear; engages domestically and internationally on energy issues; and provides Canadians with information on energy markets.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
32,211,879	20,512,110	19,012,109

Human Resources (FTEs)

2014-15	2015-16	2016-17
169	170	156

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Collaboration between federal, provincial, territorial governments on energy issues	Percentage of priorities, as identified by Energy Ministers, completed on time	100%	Late summer 2014 [Priorities are delivered and reported on as per the annual Energy & Mines Ministers' Conference (EMMC) which typically occurs in late summer.]
The Government of Canada's regulatory framework governing Canada's energy resources (e.g., pipelines, frontier lands and offshore oil and gas) is renewed and continuously improved	Number of assessments and/or updates to energy regulations and/or Canada's energy regulatory framework	1	Ongoing

Planning Highlights

Addressing the barriers that the energy sector faces in gaining access to international markets and new market segments will require a multi-pronged approach. The approach will focus, in equal parts, on the regulatory, federal-provincial and global contexts. Specifically, the department will:

Update the Government of Canada's regulatory framework that governs Canada's energy resources, including:

a. advancing regulations that focus on outcomes rather than specific steps in support of responsible resource development for offshore petroleum and by developing modern occupational health and safety regulations for the Atlantic Accord areas, in partnership with the provinces of Nova Scotia and Newfoundland and Labrador;
b. supporting the amendment of the National Energy Board's (NEB) Damage Prevention Regulations to ensure the effective management of safety and environmental protection for work near pipelines;
c. providing policy support to the amendment of the NEB Part VI (Oil and Gas) Regulations to update the NEB's oil and gas import and export regulatory framework; and,
d. establishing regulations pursuant to the *Nuclear Liability and Compensation Act* to designate nuclear installations and the operators for those installations, and prescribe classes of nuclear installations and the amounts of liability applicable to those classes.
e. developing new regulations under the National Energy Board Act to clarify liability and ensure pipelines have sufficient financial capacity to respond to potential incidents.

Aside from supporting the competitiveness of Canada's energy products, these updates will also support the continuous improvement of the regulatory framework.

In addition to the regulatory updates, NRCan will also advance the restructuring of Atomic Energy of Canada Limited's Nuclear Laboratories through a competitive procurement process to bring private-sector rigour and efficiencies into the management of its facilities and services under a Government-owned, Contractor-operated model.

At the federal-provincial level, the Department will engage and collaborate with provinces and territories on energy priorities (e.g., Energy and Mines Ministers' Conference) to improve market access for energy products, while supporting energy production across the country through knowledge sharing, and the alignment of policy and program efforts, where appropriate.

NRCan will promote Canadian energy resources to enhance and diversify market access by addressing barriers, such as the European Union's Fuel Quality Directive, and branding Canada globally as a reliable and responsible resource developer through international bilateral and multilateral engagement, advocacy and communications.

To help increase the participation of Aboriginal people in west coast energy development, the department will engage with Aboriginal peoples on the report of the Special Federal Representative on West Coast Energy Infrastructure, as well as provinces and industry, and identify the most promising avenues for meaningful follow-up.

Program 1.2: Innovation for New Products and Processes

Description: Optimizing the use of Canada's natural resources and the processes by which they are developed would improve the productivity and competitiveness of natural resource sectors. The objective of this Program is to maximize productivity and competitiveness by encouraging the adoption of new technologies and processes and the development of new products. These objectives are achieved by conducting and supporting research and development and by delivering frameworks and policies for, and demonstrations of, new applications, technologies, processes, and products.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
67,598,586	67,598,586	66,175,755	64,218,235

Human Resources (FTEs)

2014-15	2015-16	2016-17
303	302	300

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Natural resource sectors increase production of new products and processes	Number of new products and processes resulting from NRCan information	5	March 31, 2015
	Research and development (R&D) expenditures in natural resource sectors, specifically total intramural R&D expenditures in energy, mining and forest sectors	Favourable 10-year trend	March 31, 2015
Public and private sector organizations' business and program decision-making is improved as a result of geospatial innovation	Number of public or private sector organizations related to natural resource development citing improved decision making resulting from NRCan's innovative geospatial systems, applications or frameworks	5	March 31, 2015

Planning Highlights

Increasing access to international markets and new market segments supports the global competitiveness of Canada's natural resource sectors. However, maintaining that competitiveness is also dependent on increasing the productivity and diversification of Canada's natural resource products. NRCan will seek to encourage the adoption of new technologies by industry stakeholders in all sectors. For the minerals and metals sector, the focus will be on the development of demonstration of technologies that will aim to reduce the risks associated with exploration. The Department will continue to work through the Federal Committee on Geomatics and Earth Observation to advance the adoption of common standards for authoritative, interoperable geospatial information, services and applications, enabling collaboration across Government, innovation and better services for Canadians. In support of the forest sector, NRCan will assist with the development of new end-uses for products to expand opportunities beyond traditional uses and markets.

Sub-Program 1.2.1: Mining Innovation

Description: Increased innovation is needed to improve the productivity and competitiveness of Canadian mines. However, declining university enrolment in mining-related fields and changes in the industry are affecting Canada's capacity for mining innovation. Through this Sub-program, NRCan encourages mining innovation by using a collaborative approach to reduce financial risks for industry partners, and ensuring that program priorities are aligned with business needs. NRCan also conducts coordinated research to address priorities identified by stakeholders, such as technologies to safely and profitably develop and operate deeper mines, and to process ores, concentrates and recyclable materials that cannot be processed with commercially available technologies. As well, it creates opportunities to develop the next generation of professionals, and supplies certified reference materials to service providers and industry analytical laboratories, which rely on such reference materials to ensure the quality of data that inform mineral investment decisions, determine product value, drive process improvement, and improve confidence in environmental monitoring.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
3,387,585	3,387,585	3,387,572

Human Resources (FTEs)

2014-15	2015-16	2016-17
38	38	38

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Technology developers increase demonstration of innovative mining and processing technologies	Number of demonstration projects	2 over 5 years	March 31, 2017

Planning Highlights

By managing the physical and financial risks of the early stages of technological development, the Department is able to overcome the barriers to adoption of new technologies and encourage their ultimate use by the minerals and metals industry. For example, NRCan will conduct a demonstration project of an innovative new alternative to Portland cement binder technology in back-fill for underground mine openings.

Sub-Program 1.2.2: Forest Sector Innovation

Description: Canada's forest sector has experienced a decrease in its market share as a result of changing global and regional demand and increasing competition. To regain its competitive position and compete profitably in a wider array of markets, the sector must focus on innovation (i.e., research, development and deployment) and move towards a more diversified and innovative mix of higher-value specialized products, processes and technologies. Through a forest sector innovation system sector partners can align and pursue common innovation priorities. Through this Sub-program, NRCan brings together various players in the forest sector innovation system – governments, industry, communities (Aboriginal and non-Aboriginal), and research institutions – to focus on collectively identifying, funding and delivering on the innovation priorities of the sector. NRCan also conducts research with, and provides financial contributions to, FPInnovations, other forest sector research partners, and eligible forest product companies to research, develop and deploy new products, processes and technologies. This Sub-program includes the Forest Innovation Program, Forest Research Institutes Initiative, and Canadian Regulatory System for Biotechnology.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
53,286,840	52,165,401	50,207,968

Human Resources (FTEs)

2014-15	2015-16	2016-17
188	187	185

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Forest sector innovation is accelerated by the endorsement of an annual research plan by the forest sector innovation system	Annual research plan endorsed by the FPInnovations National Research Advisory Committee (NRAC)	1 endorsed research plan	March 31, 2015
NRCan, industry, provinces and academia develop higher-value Canadian forest products and processes which lead to new technologies to create a better competitive position for the Canadian forest sector	Number of new higher-value Canadian forest products or processes that lead to new technologies produced	10	March 31, 2017

Planning Highlights

The development of a more diversified wood product mix will require financial investments in new technologies and the provision of expertise to optimize the commercial potential of existing products. Through its Forest Innovation Program, NRCan will support the forest sector's efforts to develop opportunities in bioenergy, bio-products and next generation building materials. NRCan will also provide advice and information to industry and policy makers on optimizing the value of forest fibre from production to the promotion of the products.

In addition, NRCan will contribute to increasing Aboriginal participation in major resource projects relating to forestry by enhancing the depth of Aboriginal capacity to do so and seize new opportunities. The Department will also participate in the Federal Framework for Aboriginal Economic Development through its funding program, the Strategic Partnerships Initiative.

Sub-Program 1.2.3: Geospatial Innovation

Description: Natural resource sectors, like other public and private sectors, rely on location-based information to make production and business decisions. This Sub-program supports federal, provincial, territorial, and private sector partnerships and collaboration to deliver cost-effective geospatial science, technology, data, policy and applications solutions that are built once and used many times across economic, social and environmental sectors. This Sub program includes the GeoConnections program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
10,924,161	10,622,768	10,622,694

Human Resources (FTEs)

2014-15	2015-16	2016-17
77	77	77

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Interoperability of geospatial data	Number of public or private sector organizations adopting recognizable standards, policies, tools and frameworks in value-added applications to support their business objectives	10 federal departments and 3 large private sector companies	March 31, 2015

Planning Highlights

There is a growing need for data integration and modeling to help address complex, horizontal issues facing the Government of Canada today. As a result, NRCan will continue to work through the Federal Committee on Geomatics and Earth Observation to ensure that the way government shares, uses and manages its location-based (known as "geospatial") information is appropriate for new uses. In 2014-15, NRCan will also develop action plans based on a pan-Canadian strategic framework for the entire geomatics sector.

At the federal-provincial-territorial level, the Department will collaborate with provinces and territories through the Canadian Committee on Geomatics to re-renew the Geomatics Accord. As demonstrated by the success of the Canadian Geospatial Data Infrastructure (CGDI), the adoption of common standards, policies and tools can increase the interoperability, accessibility and use of geospatial information across a large variety of organizations. As such, the adoption of standards will also be pursued through engagement with the Canadian Geomatics Community Round Table and with select private sector or not-for-profit firms to enable small and medium enterprises (SMEs) as well as larger firms, to help drive innovation, achieve operational efficiencies, and improve service to Canadians.

Program 1.3: Investment in Natural Resource Sectors

Description: Investing in the development of natural resources is costly and risky due to inherent uncertainties in the potential economic viability of natural resource projects. Many factors must be considered when deciding whether to develop a natural resource project. In some cases, limited information may make it difficult for investors and/or companies to assess potential opportunities. The objective of this Program is to encourage investment in the natural resource sectors by increasing industry's knowledge of opportunities, regulations and obligations. This ensures that a more accurate assessment of the expected benefits of an investment can be made and subsequently compared to its costs and risks, thereby allowing for a more comprehensive investment decision. This objective is achieved by providing funding and information on the factors that determine the potential economic viability of natural resource projects.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
55,641,175	55,641,175	53,472,654	54,134,355

Human Resources (FTEs)

2014-15	2015-16	2016-17
402	367	365

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Natural resource sectors have increased investment	Growth of capital expenditures in the energy sector (average of past 5 years) compared to growth in overall capital expenditures in Canada (average of past 5 years)	The average 5-year growth rate of capital expenditures in the energy sector is equal to or higher than the average 5-year growth rate in capital expenditures in Canada	March 31, 2015
	Growth of capital expenditures in the forest sector (average of past 5 years) compared to growth in overall capital expenditures in Canada (average of past 5 years)	The average 5-year growth rate of capital expenditures in the forest sector is equal to or higher than the average 5-year growth rate in capital expenditures in Canada	March 31, 2015
	Growth of capital expenditures in the minerals and metals sector (average of past 5 years) compared to growth in overall capital expenditures in Canada (average of past 5 years)	The average 5-year growth rate of capital expenditures in the minerals and metals sector is equal to or higher than the average 5-year growth rate in capital expenditures in Canada	March 31, 2015

Planning Highlights

Access to international markets and new market segments and innovation to support the global competitiveness of the natural resource sectors require capital investment. In 2014-15, NRCan will promote increased capital investment by the private sector through dissemination of knowledge on opportunities for investment and promotion activities that position Canada as an attractive destination for capital.

Potential opportunities and new methodologies for industry investment in Canada's North will be identified through the Geo-Mapping for Energy and Minerals 2 program. NRCan will also conduct targeted resource assessments and develop tools for use in unconventional and untapped energy resource areas. Such new geoscience information, methods, tools and models will serve to support the discovery of new mineral deposits and the mining industry's effectiveness and long-term prosperity. Departmental efforts to promote capital investment in Canadian natural resources will also focus on the minerals and metals sector. On the regulatory side, work will continue through the Major Projects Management Office Initiative to continuously improve the federal regulatory system.

Sub-Program 1.3.1: Mineral Investment

Description: Canada must compete for mineral investment because capital is mobile and flows to countries that offer attractive, risk-adjusted returns for investors. Mineral exploration creates opportunities for Canadians and can lead to increasing investments and revenue from resources over the medium term. Governments need specific information on mineral exploration and mine development to manage policies that affect mineral investment. Through this Sub-program, NRCan collects socioeconomic data on mineral exploration, deposit appraisal and mine complex development expenditures, physical output from production facilities, and the value of mineral production and trade. NRCan prepares tax rulings for provisions of the *Income Tax Act* administered by the Minister, and provides expertise, analysis and support to other departments with a lead responsibility for tax and investment policies.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
9,894,495	9,894,495	9,894,390

Human Resources (FTEs)

2014-15	2015-16	2016-17
105	104	104

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Industry decision-makers and potential investors are provided with timely information on mineral socio-economic data	Number of data sets released	5	March 31, 2017

Planning Highlights

To increase capital investments in the minerals and metals sector, the Department will promote Canadian best practices in responsible mineral resource governance internationally through the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, and by furthering work on Corporate Social Responsibility. NRCan is committed to providing information on mineral socio-economic data as well as on foreign markets and working with global partners. NRCan will also promote Canada as a competitive destination for foreign direct investment by highlighting Canada's positive investment climate for mineral capital.

Sub-Program 1.3.2: Targeted Geoscience Initiative 4 (TGI4)

Description: Mineral resources are one of the principal economic drivers in many rural and remote Canadian communities. Known reserves are declining and new geoscience knowledge and techniques are required to help industry explore more effectively for undiscovered mineral resources in existing and emerging mining areas. Through this Sub-program, NRCan develops an understanding of entire mineral systems and provides industry with innovative ways for deep exploration, thereby maximizing yield. It targets selected mineral districts across Canada to provide the best examples of Canada's major ore systems, and to develop optimal predictive models and techniques for deep exploration. This helps natural resource sectors access viable investment opportunities. This Sub-program includes the Targeted Geoscience Initiative 4 program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
8,022,725	5,233,750	5,233,712

Human Resources (FTEs)

2014-15	2015-16	2016-17
56	50	49

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Industry applies NRCan knowledge and/or techniques, enabling more effective exploration for as-yet undiscovered resources	Number of attributions of use of NRCan's geoscience knowledge and techniques in exploration strategies resulting in greater exploration effectiveness	5	March 31, 2015

Planning Highlights

Another way to increase capital expenditures is to enable more effective exploration of new or previously untapped resources. The Targeted Geoscience Initiative 4 is instrumental in providing geoscience knowledge that supports the development of techniques that make such exploration more effective. NRCan will also develop proposals to pursue its work on the development of geoscience tools, methods and knowledge.

Sub-Program 1.3.3: Geo-Mapping for Energy and Minerals

Description: Public geoscience information stimulates industry investment, which might not otherwise occur given the level of uncertainty about exploration opportunities. Through this Sub-program, NRCan provides modern geological knowledge of the northern landmass to the private sector to guide exploration investment in the North. It focuses on characterizing the regional geological context to establish whether areas have a high or low likelihood of resource potential. In addition to reducing risk and stimulating exploration investments by industry, this same geological knowledge also informs Northerners' land-use decisions so that they can undertake responsible resource development that does not compromise conservation efforts or other land-use considerations. Through this Sub-program, NRCan promotes exploration and long-term sustainable development for vast and untapped resources in the North. This Sub-program includes the Geo-Mapping for Energy and Minerals program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
28,618,359	33,020,503	33,682,371

Human Resources (FTEs)

2014-15	2015-16	2016-17
179	175	174

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments and industry have increased geoscience information on Canada's North to help guide development decisions	Number of unique NRCan products accessed (e.g., downloaded) annually on Northern geoscience information	50	March 31, 2015

Planning Highlights

The Geo-Mapping for Energy and Minerals Program (GEM) provides geoscience information and knowledge to inform Northerners' land-use decisions, promoting responsible resource exploration and, ultimately, investments. Specifically, in 2014-15, the program will deliver public geoscience information and knowledge on Canada's Northern regions such as regional geophysical surveys and geological maps and reports. Doing so will guide industry towards areas of high mineral and energy resource potential and support evidence-based land-use planning in those areas. NRCan will also develop proposals to pursue its work on geoscience.

Sub-Program 1.3.4: New Energy Supply

Description: Given increased energy use and global decline in conventional energy resources, the development of new sources of energy is important in addressing Canada's long-term energy requirements. These new sources will support the energy supply mix, which is an important part of sustainable long-term economic growth in Canada. However, Canada's private sector currently lacks geoscience information to enable it to make the best investment decisions. Through this Sub-program, NRCan provides the public and private energy sector with strategic assessments, methodologies and information required to make investment decisions on unconventional (shale oil and shale gas) and northern and offshore energy resources, which could increase natural resource investment and support a sustainable energy mix to meet Canada's future energy demands.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
5,323,906	5,323,906	5,323,882

Human Resources (FTEs)

2014-15	2015-16	2016-17
38	38	38

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Public and private sectors access knowledge products supporting assessment and investment decision-making on new energy exploration basins	Number of unique reports, such as strategic assessments, accessed (e.g., downloaded) annually by stakeholders	25	2015

Planning Highlights

Potential investors are more likely to provide capital for untapped or new energy sources if they have knowledge of those sources as well at the potential pay-offs. To this end, NRCan will produce and release reports, tools, assessments and models to help industry, government and other stakeholders better understand Canada's shale petroleum resource potential. The Department will also conduct targeted resource assessments of unconventional, Northern and Offshore basins.

Sub-Program 1.3.5: Major Projects Management Office Initiative

Description: Major resource projects represent significant economic investments, creating thousands of jobs and providing important economic development opportunities for communities across Canada. As much as $650 billion is expected to be invested in more than 600 major resource projects across Canada over the next 10 years. Efficient and effective federal project reviews facilitate these investments and capitalize on the potential to stimulate jobs and growth through responsible resource development, while also maintaining strong environmental protection. The objective of the Major Projects Management Office Initiative is to support timely and effective project reviews and to lead government-wide efforts to modernize the regulatory system for major projects. This includes efforts to improve the alignment of federal and provincial regulatory processes and to ensure effective and meaningful consultation with Aboriginal people.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
3,781,689	-	-

Human Resources (FTEs)

2014-15	2015-16	2016-17
24	-	-

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Regulatory reviews of major projects are completed in a predictable and timely manner	Timeliness: Average review time of completed MPMO projects	<2 years	Ongoing
System-wide improvement of the federal regulatory process for major project reviews	Legislative, regulatory and policy improvements advanced through the MPMO Initiative	Continuous improvement	Ongoing

Planning Highlights

Ensuring that the regulatory process is efficient and effective is essential for attracting capital investment in all natural resource sectors. NRCan will implement the plan for Responsible Resource Development by advancing system-wide improvements to the federal regulatory system, and ensuring consistency across federal legislative, regulatory, policy and program initiatives related to major resource projects. This will include pipeline[7] and marine safety systems and enhancing Aboriginal consultation.

NRCan will also provide project management and oversight of more than 70 major resource projects to ensure timely and predictable reviews, and collaborate with provincial partners to develop mechanisms and agreements for aligning federal and provincial regulatory review processes for major projects.

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[7] Relates to FSDS Implementation Strategy 4.7.6

Program 1.4: Statutory Programs – Atlantic Offshore

Description: Through this Program, NRCan monitors and facilitates payment disbursal agreements and transfer payments under the Atlantic Offshore Accord Acts. The Program includes the following programs: Canada Newfoundland Offshore Petroleum Board; Payments to the Newfoundland Offshore Petroleum Resource Revenue Fund; Payments to the Nova Scotia Offshore Revenue Account; Nova Scotia Crown Share Adjustment Payment; and Canada-Nova Scotia Offshore Petroleum Board.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
1,293,425,000	1,293,425,000	1,328,316,000	1,518,474,000

Human Resources (FTEs)

2014-15	2015-16	2016-17
-	-	-

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Statutory requirements relating to offshore petroleum payments in Nova Scotia and Newfoundland and Labrador are managed in a timely manner	Percentage of offshore payments processed in a timely manner (Note: this is based on performance information from 2011-12 PMF)	100%	Ongoing
Statutory requirements relating to offshore petroleum payments in Nova Scotia and Newfoundland and Labrador are managed in an accurate manner	Percentage of offshore payments processed in an accurate manner (Note: this is based on performance information from 2011-12 PMF)	100%	Ongoing

Planning Highlights

The Atlantic Offshore Accords provide that the benefits of revenues from offshore petroleum should flow to provinces as if the resources were on land. Revenues collected by the Receiver General for Canada in this regard are paid to the provinces of Nova Scotia, and Newfoundland and Labrador.

NRCan will continue to process offshore transfer payments to both Nova Scotia and Newfoundland and Labrador as required under the *Atlantic Offshore Accord Acts* in a timely and accurate manner.

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Description: Energy use and natural resource development can have negative impacts on the land, water, and air, which can affect the standard of living of current and future generations. The objective of this Strategic Outcome (SO) is to encourage natural resource consumers and sectors to lessen and prevent environmental impacts. Natural Resources Canada (NRCan) contributes to the achievement of this outcome by encouraging the adoption of cleaner and more efficient technologies, products, practices and services, fostering innovative solutions to environmental challenges associated with natural resource development and use, and enabling the management of potential impacts on the environment.

Program 2.1: Energy-Efficient Practices and Lower-Carbon Energy Sources

Description: Canada's energy markets are defined by the decisions of consumers and producers who do not necessarily make choices that minimize their impact on the environment. Multiple barriers exist, including a lack of awareness of available options and their benefits, insufficient capacity for adoption (e.g., regulatory frameworks, codes and standards), and financial risk. The objectives of this Program are to address these barriers by encouraging and enabling energy consumers and producers to adopt cleaner and more efficient technologies, products, services and practices. These objectives are achieved through education and outreach activities, targeted incentives, and regulatory interventions that keep pace with technological changes.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
464,018,045	464,018,045	255,596,149	188,718,695

Human Resources (FTEs)

2014-15	2015-16	2016-17
291	288	122

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Energy consumers and producers adopt environmentally responsible products and practices related to energy use and production	Biofuel production in Canada	Favourable 5-year trend, as per 2007 baseline of 786.1 million litres of ethanol and 92.8 million litres of biodiesel	Now, and Ongoing
	Canada's total annual energy savings due to efficiency (difference between energy use without energy efficiency improvements and energy use with energy efficiency improvements; the units are petajoules (PJ))	Favourable 5-year trend in PJ saved, as per 2008 baseline	Now, and Ongoing
	Renewable electricity generation capacity in megawatts (MW)	Favourable 5-year trend in MW, as per 2007 baseline of 6,753 MW of installed capacity (excluding large hydro)	Now, and Ongoing

Planning Highlights

Reducing the environmental impacts of energy-use from traditional sources requires the identification and production of renewable energy sources. To this end, NRCan will support the Government of Canada in better understanding these sources (e.g., marine energy) and work with industry stakeholders to bolster capacity for its production through the ecoENERGY for Renewable Power program. The Department will also increase consumers' knowledge of energy-efficient practices through training under the ecoENERGY Efficiency program. These efforts will ultimately assist with reducing greenhouse gas emissions.

Sub-Program 2.1.1: Renewable Energy Deployment

Description: Canada has abundant renewable energy resources. Deployment of renewable energy technologies will diversify Canada's energy mix and, in the long term, decrease Canada's greenhouse gas emissions. Through this Sub-program, NRCan is developing a supportive policy framework for administering marine renewable energy measures in the federal offshore through the Marine Renewable Energy Enabling Measures program. NRCan also supports production from renewable energy projects already deployed through the ecoENERGY for Renewable Power and Wind Power Production Incentive programs.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
162,155,190	156,756,355	142,445,330

Human Resources (FTEs)

2014-15	2015-16	2016-17
8	7	7

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Renewable electricity is produced by the projects supported by NRCan programs	Number of terawatt-hours (TWh) of clean electricity produced	15.7 TWh	March 31, 2015
Stakeholders have timely access to information on policy options for developing a regulatory framework for the development of marine renewable energy in the federal offshore	Policy paper advancing knowledge of policy options for administering marine renewable energy in Canada's federal offshore is produced on time	1 policy paper	March 31, 2015

Planning Highlights

Marine renewable energy is a largely untapped power source for Canada. NRCan will complete a policy paper to advance knowledge of policy options for administering marine renewable energy in Canada's federal offshore[8]. NRCan will also support the production of up to a maximum of 15.7 terawatt-hours of clean electricity through the ecoENERGY for Renewable Power and Wind Power Production Incentive programs[9].

NRCan will further support the government by managing the loan guarantee for the Lower Churchill River hydroelectric projects.

Sub-Program 2.1.2: Support for Clean Energy Decision-Making

Description: Canada requires an understanding of how clean energy production options can fit within the broader energy system. Public and federal government decision-makers need information to evaluate the effectiveness of solutions to the domestic and international environmental impacts of energy development. Through this Sub-program, NRCan provides tools, information and analysis to federal decision makers and the Canadian public regarding energy-related environmental issues (particularly climate change) and clean energy technologies, and supports Canada's international climate change negotiators. This Sub-program includes activities under three Clean Air Agenda programs: the Clean Energy Policy program, the International Negotiations program, and the Clean Energy Dialogue.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
3,818,625	3,818,625	-

Human Resources (FTEs)

2014-15	2015-16	2016-17
20	22	-

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[8] Relates to FSDS Implementation Strategy 1.1.32

[9] Relates to FSDS Implementation Strategy 1.1.46

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Canadian international climate change objectives are advanced in international meetings	Percentage of Canadian objectives reflected each year in the outcomes of relevant international meetings (e.g., UNFCCC)	80%	March 31, 2015
The public and federal government decision-makers have access to information that supports decisions on climate change and clean energy issues	Number of new or updated information products available to the public that aim to advance knowledge of Canada's energy resources and environmental impacts	10	March 31, 2015
	Provision of information products (e.g., advice and analysis) to federal decision-makers regarding clean energy and environmental issues in response to requests	95% of requests fulfilled	March 31, 2015

Planning Highlights

The Department will continue to provide information to decision-makers on domestic clean energy, climate change policy, and energy-related environmental issues, such as the development of greenhouse gas regulations for the oil and gas sector[10].

NRCan will also collaborate with the United States to help ensure that the development of oil and gas resources is carried out in a responsible and sustainable manner and will work together to modernize energy use and efficiency, which could include, for example, collaboration on harmonized energy efficiency performance standards and labeling. NRCan will also continue to support Environment Canada (the lead Department for Canada) on the Clean Energy Dialogue to enhance clean energy technology implementation to reduce greenhouse gases.

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[10] Relates to FSDS Implementation Strategy 1.1.40

The Department will also advance Canada's energy and technology interests at environmental and climate change-related international fora (e.g., United Nations Framework Convention on Climate Change and the Clean Energy Ministerial process), with the aim of helping to ensure that Canadian objectives are reflected in the outcomes of the discussions[11].

Sub-Program 2.1.3: Alternative Transportation Fuels

Description: Alternative fuels (e.g., natural gas, ethanol, biodiesel) have a lower carbon content and thus emit fewer greenhouse gases than conventional transportation fuels, such as gasoline and diesel. However, fuel producers and users, vehicle and equipment manufacturers, and policy makers face barriers to the production and use of alternative transportation fuels. These barriers include lack of market capacity to produce alternative fuels; lack of familiarity by end-users and other stakeholders of the benefits of alternative fuel use; and lack of codes and standards governing alternative vehicles and infrastructure. Through this Sub-program, NRCan is addressing these barriers by increasing production capacity, designing and developing education and outreach materials, and facilitating the design, development and updating of codes and standards. This Sub-program includes the following programs: ecoENERGY for Biofuels and ecoENERGY for Alternative Fuels.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
254,504,480	51,524,480	29,108,305

Human Resources (FTEs)

2014-15	2015-16	2016-17
27	26	24

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[11] Relates to FSDS Implementation Strategy FSDS IS 1.1.53, which is co-led by Environment Canada

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Fuel producers have the capacity to produce renewable alternatives to gasoline and diesel	Number of litres of renewable alternatives to gasoline and diesel that industry has the capacity to produce	Sustain the built production capacity level of December 2012: 1,881 million litres of renewable alternative to gasoline and 555 million litres of renewable to diesel	March 31, 2017
Stakeholders (policy makers, end-users, alternative and conventional fuel producers, and vehicle and equipment manufacturers) have increased knowledge of alternative fuel pathways	Percentage of survey respondents reporting increased knowledge of alternative fuel pathways	Target to be established once baseline information collected from first survey in 2013	March 31, 2016
Standards community has increased ability to develop and update codes and standards related to alternative transportation fuels	Number of codes and standards committees actively working on developing and updating the codes and standards	2 until March 31, 2016	March 31, 2016

Planning Highlights

Through its ecoENERGY for Biofuels program, NRCan will support the production in Canada of renewable alternatives to gasoline and diesel[12]. And through the ecoENERGY for Alternative Fuels program, it will support two codes and standards committees within the Canadian Standards Association that will be developing installation codes for natural gas refueling stations and natural gas vehicles, and the establishment of three information hubs (Montréal, Ottawa, Calgary)[13].

NRCan will also work with key stakeholders (e.g. policy makers, end-users, alternative and conventional fuel producers, vehicle and equipment manufacturers) to increase their knowledge of alternative fuel pathways (FSDS IS 1.1.30).

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[12] Relates to FSDS Implementation Strategy 1.1.23

[13] Relates to FSDS Implementation Strategy 1.1.27

Sub-Program 2.1.4: Energy Efficiency

Description: Increasing energy efficiency reduces greenhouse gas emissions. Many Canadian energy users are unaware of the benefits of adopting energy-efficient technologies and practices. As well, regulations, codes and standards require ongoing stringency improvements because the energy efficiency of housing, buildings, and energy-using products is continually improving. Through this Sub-program, NRCan encourages the adoption of energy-efficient technologies and practices through labelling, information and training, and by making the stock of housing, buildings and energy-using products more efficient through regulation, codes, standards and energy benchmarking activities. It also makes industrial and vehicle operations more energy efficient through energy management standards, practices and training. This Sub-program includes the ecoENERGY Efficiency program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
43,539,750	43,496,689	17,165,059

Human Resources (FTEs)

2014-15	2015-16	2016-17
236	233	91

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Canadians adopt NRCan-targeted energy efficient products and practices	Number of jurisdictions adopting the 2011 National Energy Code for Buildings (NECB)	4-6 provinces and territories adopting NECB or equivalent	March 31, 2016
	Number of provincial, territorial and/or utility programs using NRCan-developed housing standards and systems	12 regional programs using NRCan-developed housing standards and systems	Ongoing, to 31-Mar-16
Increased energy efficiency resulting from NRCan programs	Petajoules of energy saved through energy efficiency programming	36-44 petajoules	March 31, 2016

Planning Highlights

In addition to increasing government's understanding of renewable sources of energy and supporting industry in generating those sources, NRCan will foster adoption of energy-efficient practices at the individual and household levels[14]. For instance, through its ecoENERGY Efficiency program in 2014-15, NRCan will contribute 25-32 petajoules of energy savings, which is equivalent to the energy required by 240,000 to 300,000 households over one year (excluding transportation requirements). The program will also be used to support training sessions on energy efficient products and practices for 200,000 individuals in the transportation sector, 800 in the buildings sector, 500 in the housing sector, and 750 in the industrial sector[15].

Program 2.2: Technology Innovation

Description: S&T is key to overcoming challenges confronted by natural resource sectors in pursuing responsible development. Through this Program, NRCan encourages academia, industry and the public sector to research, develop and demonstrate innovative solutions to environmental challenges. This objective is achieved through the generation and dissemination of scientific knowledge, and the development and demonstration of new technologies.

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[14] Relates to FSDS Implementation Strategy 1.1.41

[15] Relates to FSDS Implementation Strategy 1.1.45

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
150,090,774	150,090,774	122,495,639	73,422,952

Human Resources (FTEs)

2014-15	2015-16	2016-17
591	588	536

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Stakeholders invest in S&T to address environmental challenges	Dollar value of stakeholder investments in S&T to address environmental challenges	5% increase over previous 5 years	March 31, 2015

Planning Highlights

A number of environmental challenges arise from energy use, particularly from traditional sources, and the identification and generation of renewable energy sources is one solution. NRCan will make targeted efforts to support the development and uptake of innovative solutions by industry stakeholders to address these environmental challenges and increase adoption of energy efficient practices. Specifically, NRCan will provide S&T expertise in the form of new materials technologies to industry. The Department will also make use of partnerships with external stakeholders, including academia and other government departments, to implement clean energy technology projects.[16]

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[16] Relates to FSDS Implementation Strategy 1.1.42

Sub-Program 2.2.1: Materials for Energy

Description: Opportunities exist to increase the energy efficiency of Canadian industry through the use of innovative materials technology in such applications as clean power generation, reliable transportation of fossil fuels, and fuel-efficient vehicles. Through this Sub-program, NRCan performs applied research and development that delivers materials and materials-processing innovations, enabling clean energy production, safe and reliable energy distribution, and more efficient use of energy in areas such as transportation, buildings and industry.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
4,122,968	4,122,968	4,123,947

Human Resources (FTEs)

2014-15	2015-16	2016-17
83	83	82

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Advanced materials technologies for new energy efficient vehicle designs are developed for industry.	Number of advanced materials technologies to which NRCan contributed that are identified by industry stakeholders for implementation in new energy efficient vehicles to be produced in North America	2 over 3 years	March 31, 2015
New materials technologies in clean power generation, safe and reliable energy distribution and energy efficient end-use are developed for industry	Number of innovative materials technologies developed, contributed to, or validated by NRCan for use in power generation systems powered by nuclear, gas, coal or renewable energy	3 over 5 years	March 31, 2017
New materials technology to transport fossil fuels effectively (safely and efficiently) are developed for industry	Number of proposed projects to transport fossil fuels more effectively (safely and efficiently) using new materials technologies developed or validated by NRCan	3 over 5 years	March 31, 2017

Planning Highlights

NRCan is committed to being innovative and aiming to be at the forefront of industry needs by developing, validating and sharing knowledge with industry and research partners regarding technologies developed related to materials for energy. The Department will present to industry one advanced material technology, which will be implemented in the design or processing components of energy efficient vehicles produced in North America[17]. NRCan will develop new materials technologies to transport fossil fuels more efficiently, with a view to reducing the environmental impacts from energy transportation (FSDS IS 1.1.44). Finally, NRCan will develop at least one material solution for key components in the Canadian Generation-IV Supercritical Water-cooled Reactor concept[18].

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[17] Relates to FSDS Implementation Strategy 1.1.25

[18] Relates to FSDS Implementation Strategy 1.1.43

Sub-Program 2.2.2: Green Mining

Description: The development and commercialization of technologies to reduce the impacts of mining and processing entail significant financial, market and technical risk. Through this Sub-program, NRCan develops and demonstrates innovative mining technologies and practices that eliminate or reduce environmental impacts and financial risks. These technologies and practices also expand domestic and international business opportunities for mining companies, technology developers and consultants. NRCan identifies business needs, technology gaps and priorities with input from the Canada Mining Innovation Council and an advisory committee. Applied research aims to reduce land disturbance; water, energy and hazardous chemical use; waste volumes; and releases to the environment; and to accelerate site restoration. In addition, findings contribute to the scientific, technological and socioeconomic basis for updating federal, provincial and territorial mining and environmental regulations and policies, and inform policy priorities in other countries that drive demand for technologies and services.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
6,767,028	6,767,028	6,571,193

Human Resources (FTEs)

2014-15	2015-16	2016-17
86	87	86

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Technology developers increase demonstration of environmental technologies	Number of demonstration projects	2 over 5 years	March 31, 2017

Planning Highlights

Environmental technologies are an important aspect of maintaining a strong and sustainable mining sector in Canada and abroad while also protecting the environment. NRCan will therefore support responsible resource management by demonstrating key environmental technologies for green mining to industry and other stakeholders.[19] Specifically, NRCan will undertake a demonstration project to assess the feasibility of biochar for reclamation of mine sites.

Sub-Program 2.2.3: Clean Energy Science and Technology

Description: New technologies help improve the environmental impacts of energy production and use. Through this Sub-program, NRCan collaborates with academia, industry and the public sector to research, develop and demonstrate innovative solutions to environmental challenges in the energy sector. The objective is for academia, industry, and the public sector to lay the foundation for the next generation of clean energy technologies and practices to have fewer negative impacts on Canada's air, land and water. Through this Sub-program, NRCan funds, creates and advances new energy knowledge and technologies. This Sub-program includes the following programs: Clean Energy Fund, ecoENERGY Innovation Initiative and Isotope Technology Acceleration Program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
139,200,779	111,605,643	62,727,812

Human Resources (FTEs)

2014-15	2015-16	2016-17
422	418	368

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[19] Relates to FSDS Implementation Strategy 1.1.7

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Academia, industry and the public sector pursue clean energy S&T that has fewer negative environmental impacts	Ratio of NRCan program investments in clean energy S&T to leveraged funding from partners	1:1 ratio	March 31, 2015

Planning Highlights

To further support environmental performance, NRCan will implement clean energy technology projects with industry, academia and other government departments and agencies to research, develop and demonstrate innovative solutions to environmental challenges in the energy sector. This will include research activities that will support the responsible development and use of energy resources in areas such as energy supply (e.g., fossil fuels, including bitumen, carbon capture and storage and shale gas; renewables; clean electricity), energy distribution, and energy end-use (energy efficiency).

The Department will also improve the security of supply of medical isotopes by investing in the development of alternative technologies through the Isotope Technology Acceleration Program (ITAP), in light of AECL ceasing production of moly-99m by 2016.

Program 2.3: Responsible Natural Resource Management

Description: Greater knowledge of environmental risks and environmentally responsible practices help prevent and reduce the environmental impacts of past, present and future natural resource development. The objectives of this Program are to enable government departments, regulatory bodies and industry to assess these impacts, and to develop, monitor and maintain resources or clean up wastes responsibly. These objectives are achieved through the provision of assessments and knowledge rooted in sound science, and through waste management efforts that are undertaken in collaboration with provinces, federal agencies and municipalities.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
179,373,009	179,373,009	181,701,711	167,424,924

Human Resources (FTEs)

2014-15	2015-16	2016-17
230	231	228

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Federal government implements waste management practices that meet modern standards for safety and environmental protection	Number of contaminated sites where the environmental impacts are reduced	7 (specifically environmental impacts reduced at Whiteshell and Chalk River Laboratories, Glace Bay, Port Granby and Welcome waste management facilities, Port Hope and Northern Transportation Route sites)	2016
Public and private sectors establish practices to mitigate the environmental impacts to natural resources	Number of public and private sector new or updated policies, regulations or other decision-making tools completed annually	3	2015

Planning Highlights

Responsible management of natural resources helps to prevent the adverse environmental impacts that can result from their development. NRCan will assist industry, all levels of government and regulatory bodies in upholding environmentally responsible management practices. Specifically, NRCan will provide public geoscience information and expertise needed to support environmental assessments, to guide groundwater resource management and to better monitor cumulative environmental impacts in key resource development areas. The Department will also provide remote sensing methods, tools and data for monitoring regulatory compliance in the Alberta Oil Sands region.

Sub-Program 2.3.1: Forest Ecosystems Science and Application

Description: Forests are susceptible to climate-related changes, natural (disease) and man-made influences (harvesting, land-use changes). Sustainable development of Canada's forests requires the understanding, monitoring and assessment of forest ecosystems and their health. Science and knowledge of changing forest dynamics influence decision-making, professional practice, Canada's international reputation and market access to forest-related products. The objective of this Sub-program is to increase the overall scientific knowledge of forest ecosystems and to support knowledge-based sustainable forest management policies and practices. Through this Sub-program, NRCan conducts research, national assessments and monitoring to develop scientific knowledge of Canada's forest ecosystems. This knowledge is used by governments, industry, and non-governmental organizations for multiple purposes, including developing forest management practices and policies, meet reporting obligations, form negotiating positions, and counter misconceptions of Canada's forest practices.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
15,901,157	15,876,157	15,876,063

Human Resources (FTEs)

2014-15	2015-16	2016-17
128	128	125

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments, industry, non-governmental organizations and other stakeholders are provided with scientific knowledge on forest ecosystems to support knowledge-based sustainable forest management policies and practices	Representation of the Canadian Forest Service on advisory boards or committees involving governments, industry and non-governmental organizations in order to provide scientific knowledge on forest ecosystems	Representation on advisory boards and committees stays within 10% of baseline Baseline is 128 advisory boards and committees	March 31, 2015

Planning Highlights

NRCan will conduct and synthesize science-based research on forest ecosystems, which will help enable more effective stewardship of forests, ultimately improving Canada's environmental reputation. NRCan will also produce estimates of forest-related carbon and greenhouse gas emissions to be used in Canada's 2014 greenhouse gas National Inventory Report. This report will inform policy for above-ground carbon-related issues that affect forest health and thereby support responsible resource development within the forest sector and other industries. Finally, the Department will publish a series of review papers in a peer-reviewed scientific journal on Canada's Boreal zone, reflecting its health and sustainability in response to climate change and other drivers.

NRCan will also provide forest and geoscience information and timely expert advice that are scientific, technical and policy based for projects that require environmental assessments under the *Canadian Environmental Assessment Act*, including mining projects.

Federal Sustainable Development Strategy Target Led by Natural Resources Canada

FSDS Goal	Performance Indicator	FSDS Target
Goal 5: Biological Resources Efficient economic and ecological use of resources – Production and consumption of biological resources are sustainable.	Annual harvest of timber relative to the level of harvest deemed to be sustainable (Allowable Annual Cut (AAC)). Please note: Provinces are responsible for the management of forests. The federal government collates and analyzes the data provided by provinces and making it available to the public.	Target 5.3: Sustainable Forest Management: Contribute to the proposed national target that by 2020, continued progress is made on the sustainable management of Canada's forests. Indicator: Representation of the Canadian Forest Service on advisory boards or committees involving governments, industry and non-governmental organizations in order to provide scientific knowledge on forest ecosystems.

Sub-Program 2.3.2: Groundwater Geoscience

Description: Groundwater provides up to 80% of rural Canada's drinking water and is an essential component of ecosystem health. In the face of growing pressures on water resources, Canada needs a consistent and coordinated approach to groundwater management. NRCan conducts groundwater mapping and assessment activities on key aquifers to better understand the extent of groundwater systems, their dynamics and vulnerability. NRCan also collaborates with its provincial partners to ensure data and approaches in different jurisdictions are harmonized. This information is disseminated through a web portal used by other departments and levels of government, planners and land-use professionals for decision making. Through this Sub-program, NRCan provides comprehensive groundwater information and expertise, which contributes to sustainable land-use decision making and groundwater management.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
3,566,128	3,566,128	3,566,087

Human Resources (FTEs)

2014-15	2015-16	2016-17
29	29	29

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Public and private sectors involved in groundwater management practices incorporate NRCan information into their products	Number of citations from public and/or private sector organizations incorporating NRCan's groundwater maps and assessments into their products (e.g., aquifer maps, plans and reports)	5	2015

Planning Highlights

The Department supports responsible management of groundwater by providing access to tools and methods to assess groundwater resources and standardized information on key archetypal aquifers across Canada. The Department will host a national workshop on emerging groundwater issues of national interest[20].

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[20] Relates to FSDS Implementation Strategy 3.12.6

Sub-Program 2.3.3: Environmental Studies and Assessments

Description: Government departments, regulatory bodies and industry require science-based information to guide resource development practices and help reduce related environmental impacts. Through this Sub-program, NRCan provides technical and geoscience information and advice necessary for the completion of environmental assessments conducted under the *Canadian Environmental Assessment Act 2012* and northern legislation, and to address the environmental risks of major resource projects like the oil sands. It also informs the process of designating new federal parks and protected areas on federal lands with the identification of mineral and energy resource potential.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
7,547,974	7,547,974	7,547,975

Human Resources (FTEs)

2014-15	2015-16	2016-17
44	45	45

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments, regulatory bodies, industry and the public access sound environmental geoscience information	Number of citations from public and/or private sector organizations incorporating NRCan's environmental geoscience information into their products	5	March 31, 2015
	Percentage of responses for Earth Sciences Sector and Minerals and Mines Sector scientific and/or technical expertise delivered per Environmental Assessment request	95%	2015

Planning Highlights

Environmental assessments are a cornerstone of responsible resource development. The assessments are based on technical expertise. NRCan will provide the geoscience expertise needed to support environmental assessments under the *Canadian Environmental Assessment Act* and for Mineral and Energy Resource Assessment requirements.

The Department will also release progress reports (e.g., abstracts, Open Files) that present the most recent research results on the effects of hydraulic fracturing on shallow aquifers and induced seismicity.

Sub-Program 2.3.4: Radioactive Waste Management

Description: Requirements to protect the environment or human health when managing radioactive waste were less stringent in the past than they are today. In some cases, historic nuclear or uranium mining activities resulted in a legacy of radioactive waste or contaminated lands that pose risks to the environment and the health of Canadians. Through this Sub-program, NRCan develops policy and programs to establish long-term management solutions for radioactive waste in areas where federal intervention is required. Specifically, NRCan is involved in clean-up operations in cases where the wastes were either produced by a Crown corporation, or the original private sector producer no longer exists or cannot be held responsible. NRCan also develops knowledge and innovative technologies in support of responsible radioactive waste management and clean up. This Sub-program includes the following programs: the Nuclear Legacy Liabilities Program, the Property Value Protection Program, the Municipal Tax Revenue Loss Protection Program, the Historic Waste Program, including the Port Hope Area Initiative, and the Gunnar and Lorado program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
151,251,000	153,604,703	139,328,049

Human Resources (FTEs)

2014-15	2015-16	2016-17
25	25	25

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
The federal government manages (develops and implements) long-term management solutions to clean up radioactive waste	Percentage implementer compliance with applicable Canadian Nuclear Safety Commission institutional controls and/or licences to carry-out management practices	100%	March 31, 2022
	Percentage of radioactive waste management milestones completed under the Nuclear Legacy Liabilities Program	80%	March 31, 2015
	Percentage of waste management obligations achieved under the Port Hope Legal Agreement for each project	100%	March 31, 2022

Planning Highlights

To support the management of nuclear waste clean-up efforts, NRCan will complete commissioning of new water treatment plants at the New Port Hope and Port Granby facilities[21]. It also expects to tender and issue a contract for construction of the Port Granby Long-Term Waste Management Facility.

Regarding the Nuclear Legacy Liabilities Program, the Department will complete activities to support the transition of nuclear decommissioning and waste management responsibilities at the Nuclear Laboratories to the Government-owned, Contractor-operated management model.

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[21] Relates to FSDS Implementation Strategy 3.3.3

Sub-Program 2.3.5: Earth Observation for Responsible Resource Development

Description: Effective regulatory frameworks depend on environmental monitoring information and tools. Through this Sub-program, NRCan provides Earth observation and geospatial data and tools on oil and gas-concentrated regions in Canada, such as the North and the Alberta oil sands. It informs the identity of baseline conditions for various environmental components (land, water, vegetation) and the cumulative effect of natural resource development, and can guide decision-making on proposed mitigation options. This increases the capacity for regulation that could help prevent and reduce impacts to the environment in these key areas.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
1,106,750	1,106,750	1,106,750

Human Resources (FTEs)

2014-15	2015-16	2016-17
4	4	4

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments, regulatory compliance monitoring bodies and industry use Earth observation scientific information (i.e., value-added datasets and publications) to support responsible resource development practices	Number of methods, value-added products and/or demonstration products used by government regulatory bodies and/or industry	5	March 31, 2015

Planning Highlights

To support responsible resource development in the regions, NRCan will provide remote sensing methods, tools and data for regulatory compliance monitoring. The Department will also provide new ways of monitoring the cumulative environmental impacts, including for the Alberta Oil Sands region.

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources and are protected from Related Risks

Description: It is through only a deep and expansive understanding of Canada's lands and natural resources so that today's decision-makers can determine the right choices for tomorrow – choices that keep Canada's lands and natural resources properly managed and safeguarded. This deep and expansive understanding requires expertise and technology. The objective of this strategic outcome is achieved by providing this expertise and technology, enabling a) the management of risks to human, natural resource, and infrastructure health and b) the use of landmass knowledge.

Program 3.1: Protection for Canadians and Natural Resources

Description: Natural resource development and changes in the environment pose risks to human, natural resource and infrastructure health. The objective of this Program is to enable other government departments, communities, and the private sector to manage these risks and to ensure the appropriate capacity is in place. NRCan achieves this objective by providing regulation, knowledge, tools and services and by fulfilling legislated responsibilities.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
55,878,528	55,878,528	52,950,476	46,610,275

Human Resources (FTEs)

2014-15	2015-16	2016-17
443	442	424

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments, communities and the private sector manage risks or opportunities to natural resources, infrastructure, and human health	Number of active collaborations with the public and private sector that manage risks or opportunities to human population, natural resources and infrastructure health	6 collaboration agreements	March 31, 2015
	Number of risk assessments (climate change, hazards, other), policies, standards or guidelines developed using NRCan information or services	5	March 31, 2015

Planning Highlights

The potential risks posed by natural resource development and changes to the environment could negatively impact the health and well-being of Canadians and, through physical damage, the natural resource sectors and thereby the economy. NRCan will seek to address existing risks (e.g. forest pests, wildland fire) as well as anticipate and identify impacts relating to climate change and emergency management. NRCan will collaborate with other government departments, industry and communities as well as carry out compliance and outreach activities (e.g., explosives safety as part of the implementation of the modernized Explosives Regulations, 2013, including its new security provisions) and share geoscience expertise.

Sub-Program 3.1.1: Explosives Safety and Security

Description: Explosives are essential for many economic activities but are inherently dangerous. Strict controls are needed to protect Canadians from incidents that could result in death or serious injury, and economic and environmental harm. Through this Sub-program, NRCan administers and enforces the *Explosives Act* and associated regulations, which govern the manufacture, importation, transportation, sale, distribution and storage of explosives. This includes fireworks and pyrotechnics, and the sale of materials that can be used to produce explosives. Through this Sub-program, NRCan conducts compliance promotion, outreach, inspections, investigations and enforcement of the Act and regulations. It also tests and develops policies, procedures, guidelines, rules and standards, and supplies expertise to other federal government organizations and law enforcement agencies.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
5,176,433	5,238,567	4,842,159

Human Resources (FTEs)

2014-15	2015-16	2016-17
65	66	66

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Regulated establishments' compliance with regulatory requirements is monitored and enforced to protect Canadians from the dangers of explosives	Number of explosives inspections completed	600	March 31, 2015

Planning Highlights

To ensure industry compliance with regulatory requirements, NRCan will conduct inspections on explosives safety and security. Previously in 2013-14, 70% of inspections were rated satisfactory or better. In 2014-15, the aim will be to maintain that 70% compliance rate and improve compliance as the new, modernized Explosives Regulations, 2013, are being implemented. This goal will be supported by the Department's ongoing outreach activities with industry.

Sub-Program 3.1.2: Materials and Certification for Safety and Security

Description: Materials are engineered and fabricated for specific applications and environments. Defects in equipment or structures can cause failures that result in death, serious injury, and economic and environmental damage. Non-destructive testing helps to ensure the integrity of safety-critical components in aircraft, boilers and pressure vessels, bridges, buildings, cranes, heavy equipment, nuclear reactors, pipelines and other applications. Several federal regulators and other authorities require non-destructive testing to be performed by inspectors certified according to a national standard. Through this Sub-program, NRCan certifies individuals to this national standard, which is aligned with international standards. NRCan also develops materials solutions to provide increased protection to Canadian Forces personnel and assets, specifically protecting light military vehicles and occupants from the effects of improvised explosive devices, and dismounted soldiers and law enforcement personnel against projectiles and fragmentation devices.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
1,210,754	1,210,754	1,210,754

Human Resources (FTEs)

2014-15	2015-16	2016-17
13	12	11

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Individuals are certified to perform non-destructive testing to a national standard	Number of valid certifications issued by NRCan (certifications are currently offered in six methods and individuals are typically certified in more than one method and/or sector)	12,000	March 31, 2015

Planning Highlights

As with inspections of explosives, NRCan will aim to maintain the safety of the public and infrastructure by certifying individual inspectors performing non-destructive testing (NDT) to a national standard. As reference, more than 4,800 individuals are actively certified by the NRCan National NDT Certification Body located at CanmetMATERIALS in Hamilton. The availability of certified individuals will help ensure that infrastructure, heavy machinery and public transports are compliant with national and international standards of safety.

Sub-Program 3.1.3: Forest Disturbances Science and Application

Description: Increased scientific knowledge is required in Canada to understand, forecast, mitigate and adapt to natural and human-induced impacts on forest ecosystems. Through this Sub-program, NRCan conducts research and analysis to develop scientific knowledge of forest disturbances (e.g., pests, fire). This scientific knowledge is used by federal, provincial and territorial governments and agencies (both policy makers and regulators) as well as the forest industry to assess risks, forecast impacts and develop mitigation and adaptation strategies related to pests, fire, and climate change. This Sub-program includes the following programs: Invasive Alien Species Strategy for Canada, and Climate Change Adaptation program.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
24,397,656	24,397,656	23,530,537

Human Resources (FTEs)

2014-15	2015-16	2016-17
220	219	216

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments, agencies and industry are provided with scientific knowledge on forest disturbances to assess risks, and develop mitigation and adaptation strategies	Representation of the Canadian Forest Service on advisory boards or committees involving governments, industry, and non-governmental organizations in order to provide scientific knowledge on forest disturbances	Representation on advisory boards and committees stays within 10% of baseline Baseline is 73 advisory boards and committees	March 31, 2015

Planning Highlights

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Pests and fires are two common risks that the forest sector faces; NRCan is able to provide expertise to support early intervention to mitigate them. For example, NRCan will continue to conduct research for early intervention in the event of a spruce budworm outbreak and report the results to clients and stakeholders[22]. NRCan will also co-host the third Wildland Fire Canada Conference to re-engage and strengthen working relationships with other Canadian fire management agencies. This will facilitate further development of the Department's fire research and fire management information systems. Finally, NRCan will also produce an integrated assessment of the implications of climate change on Canada's forests and forest sector, using a range of future climate scenarios[23].

NRCan will continue to implement Canada's commitments concluded in international climate change negotiations such as mitigation targets and actions; short-and long-term financing; mechanisms for technology and reducing emissions from deforestation and forest degradation; adaptation actions; and provisions for transparency and accountability of climate change actions (FSDS IS 1.1.50, co-led by Environment Canada). It will also provide scientific knowledge of Canada's forest ecosystems to industry and non-governmental organizations, with the view of enabling the establishment of practices to mitigate the environmental impact of natural resource development (FSDS IS 5.3.1).

Sub-Program 3.1.4: Climate Change Adaptation

Description: Developing and sharing of information, as well as cooperation among multiple decision makers, are required to successfully plan for and manage the risks and opportunities resulting from a changing climate. Through this Sub-program, NRCan delivers an Adaptation Platform, which brings together national industry and professional organizations, federal, provincial and territorial governments, and other organizations to collaborate on shared adaptation priorities. It also delivers scientific analysis on climate change geoscience issues affecting Canada's North (North of 60 latitude) such as resource development and infrastructure. This facilitates the production and exchange of knowledge and tools that help decision makers understand the implications of a changing climate on their operations, and equips them with the tools and information needed to effectively adapt. This Sub-program includes the Enhancing Competitiveness in a Changing Climate program.

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[22] Relates to FSDS Implementation Strategy 4.6.3

[23] Relates to FSDS Implementation Strategy 1.2.4

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
9,655,336	7,370,661	2,426,737

Human Resources (FTEs)

2014-15	2015-16	2016-17
38	37	23

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Key stakeholders across Canada have access to new knowledge on risks and opportunities resulting from a changing climate for decision-making	Number of new knowledge products released	10	March 31, 2015

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Planning Highlights

NRCan will share expertise related to the impacts of climate change on the natural resource sectors with stakeholders and leverage collaborations to seek common solutions to mitigate the impacts. Using the national climate change Adaptation Platform, NRCan will engage the public and private sectors to develop and exchange knowledge and tools to support effective climate change adaptation strategies for Canada's regions and the natural resource sectors[24]. The Department will also deliver climate change geoscience expertise and tools to federal and territorial governments on Northern infrastructure requirements and constraints[25], such as those imposed by changes to permafrost[26]. These efforts will ensure that stakeholders have the knowledge to make informed decisions to address climate change.

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[24] Relates to FSDS Implementation Strategy 1.2.3

[25] Relates to FSDS Implementation Strategy 1.2.13

[26] Relates to FSDS Implementation Strategy 1.2.11

Sub-Program 3.1.5: Geohazards and Public Safety

Description: To enhance the protection of Canadians from natural hazards, constant monitoring of, and effective planning for, adverse natural events are required. Such events include earthquakes, volcanic eruptions, landslides, geomagnetic storms, radiological and nuclear incidents, and tsunamis. Through the provision of hazard information and products, NRCan helps other levels of government, including international government bodies, as well as the private sector and professional organizations such as the Canadian Institute of Planners to prepare for and mitigate natural disasters. This work also meets NRCan's obligation for ongoing nuclear test monitoring under the Comprehensive Nuclear Test Ban Treaty. This Sub-program comprises a research component, which disseminates risk-related information to support the response, recovery and preparedness phases of emergency management.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
15,438,348	14,732,838	14,600,087

Human Resources (FTEs)

2014-15	2015-16	2016-17
107	108	108

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Governments, private sector and regulatory bodies access NRCan's hazard information, products and services	Number of requests for NRCan geohazard information, knowledge products or services by government, private sector, including media, and professional organizations in Canada	55	March 31, 2015

Planning Highlights

NRCan will also collaborate with Public Safety Canada and other government departments to develop Emergency Management Plans to ensure that geohazards expertise, tools and resources are made available to stakeholders[27]. Additionally, NRCan will participate in the development and execution of interdepartmental emergency management protocols and exercises. Finally, the Department will deliver alerts through its hazards information service pertaining to seismic, nuclear radiation, space weather and other hazards.

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[27] Relates to FSDS Implementation Strategy 4.7.4

Program 3.2: Landmass Information

Description: Public, academic and private sectors as well as Canadians rely on up-to-date, comprehensive and accessible landmass information to make sound socio-economic and environmental decisions. This Program provides open access to Canada's fundamental geomatics framework and information system, including accurate three-dimensional positioning, high-resolution satellite imagery and other remote sensing products, legal (boundary) surveys, mapping and other analysis applications. In addition, it delivers logistics support in the North and regulatory oversight for a robust property system framework on Canada Lands.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
53,620,414	53,620,414	45,306,771	44,608,900

Human Resources (FTEs)

2014-15	2015-16	2016-17
393	391	387

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Polar Continental Shelf Program (PCSP) clients receive cost-effective logistics support needed to conduct field work safely in Canada's Arctic and Sub-arctic regions	Level of client satisfaction with mix, quality and cost of support received	85% of clients are either satisfied or very satisfied	March 31, 2015
Public, private sector and academia use accurate, Government of Canada geo-information for decision-making	Number of public sector, private sector or academic organizations using accurate geo-information for decision-making	10 federal departments or agencies, 5 private sector companies and 3 academic organizations	March 31, 2015
	Percentage of clients who are satisfied with Canada's legal boundary framework for effective governance, economic and social development	3 baselines complete for client satisfaction surveys (scheduled 1 bi-annually, rotational amongst key client groups: Aboriginal, other government departments, industry)	March 31, 2018

Planning Highlights

Accurate and up-to-date information is necessary to inform decision-making relating to land management. Such information also has implications for ensuring the safety of Canadians by enabling the geo-positioning of emergency response requirements. In addition, the information is essential to enable the government to meet its Aboriginal treaty obligations and to support exploration and research in the remote North. For example, through the Polar Continental Shelf Program, NRCan provides field logistics for the majority of the country's Arctic science and technology endeavours, as well as for Arctic operations such as the newly opened Canadian Armed Forces Arctic Training Centre. NRCan also provides, in collaboration with its USGS counterparts, harmonized geospatial hydrographic information in order to better manage trans-boundary watersheds.

Sub-Program 3.2.1: Essential Geographic Information

Description: Many socio-economic and environmental decisions made by the public, academia and private sector (e.g. emergency preparedness and response, land-use, elections planning, transportation and real estate) rely on up-to-date, comprehensive and accessible landmass information. Through this Sub-program, NRCan ensures open access to Canada's fundamental geomatics framework and information system, including accurate three-dimensional positioning, high-resolution satellite imagery and other remote sensing products, mapping and other analysis applications that are accurate, authoritative and assured. This essential geographic information enables sound socio-economic and environmental decisions, which support the effective management of Canada's natural resources and lands.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
32,892,306	24,445,012	24,437,608

Human Resources (FTEs)

2014-15	2015-16	2016-17
254	252	248

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Public, private sector and academia access authoritative, reliable and accurate geodetic, geographic and geospatial information for the management of natural resources and lands	Number of times geodetic, geographic and geospatial information (geo-information), tools and services are accessed (e.g., pages viewed, total visits, downloads)	5% increase from 2012/13	March 31, 2015
	Percentage of NRCan's total dataset repository updated annually	15%	March 31, 2015

Planning Highlights

In 2014-15, NRCan will collect and disseminate accurate geoscience, geodetic and geospatial information (e.g., digital mapping, satellite imagery) to support the management of Canada's natural resources and land and for the positioning of emergency response requirements. The Department will also complete the revitalization of NRCan Satellite Infrastructure with the installation of the remaining three antennas at NRCan's satellite station facilities. Doing so will provide full coverage of Canada's landmass and complete the data management system to safeguard the satellite information.

Sub-Program 3.2.2: Canada's Legal Boundaries

Description: Boundary uncertainty undermines public confidence in the property rights system and is a barrier to exercising property and sovereign rights, as well as responsible social and economic development. For the benefit of all Canadians, NRCan ensures boundary certainty through the proper maintenance of the Canada-US international boundary for law enforcement, land administration, customs and immigration, and transboundary resource management; effective boundary surveys of Aboriginal settlement lands to meet Canada's obligations under land claim settlement legislation and treaties; and statutory registration of legal surveys on Canada Lands (the North, Canada's offshore area, Aboriginal Lands and National Parks), essential to the creation of legal property boundaries. The boundary certainty provided by NRCan through this Sub-program enables effective management of Canada lands and collaboration across jurisdictions, which advance the interests of Canada's natural resource sectors, both domestically and internationally.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
12,946,238	13,063,238	12,363,150

Human Resources (FTEs)

2014-15	2015-16	2016-17
107	105	105

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Statutory obligations, including interdepartmental commitments, are achieved in support of boundary certainty for Canada (including the Canada-US boundary) and First Nation Lands	Percentage completion of Canadian obligations for Canada-US boundary maintenance requirements established in the semi-annual Commissioners' Meeting Records of Decision	100%	March 31, 2015
	Percentage of statutory obligations and interdepartmental commitments achieved as defined in the legislation and agreements for Canada and First Nation lands	100%	March 31, 2015

Planning Highlights

NRCan will complete100% of annual survey obligations as defined in land claim legislation and agreements for Northern Canada and for First Nations Land Management and Additions to Reserves in southern Canada. This work will help ensure boundary certainty and accuracy for First Nations living in those areas.

Sub-Program 3.2.3: Polar Continental Shelf Logistics Support

Description: Researchers in Canada's Arctic and Sub-arctic regions need safe, efficient and cost-effective field logistics support because of the remoteness, harsh weather, and high cost of working in those regions. Through its Polar Continental Shelf Program (PCSP), NRCan coordinates logistics for Canadian government agencies, provincial, territorial and northern organizations, universities and independent groups conducting research, particularly in Canada's North. Through this work, NRCan supports science and government priorities and contributes to the exercise of Canadian Arctic sovereignty. PCSP services include air transportation to and from remote field camps throughout the Canadian Arctic, field equipment and vehicles across Canada, and fuel for aircraft, equipment and camps. They also include meals, accommodations and working space (including a multi-purpose laboratory) at the PCSP facility in Resolute, NU, and a communications network that links the PCSP with science teams in field camps dispersed throughout the Canadian Arctic.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
7,393,579	7,393,579	7,383,579

Human Resources (FTEs)

2014-15	2015-16	2016-17
30	32	32

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Canadian Arctic researchers and federal government departments and agencies receive the requested PCSP field logistics support	Percentage of valid requests for logistics support received and supported by PCSP	95%	March 31, 2015

Planning Highlights

NRCan will collaborate with the Department of National Defence to deliver accurate field logistics for the Canadian Armed Forces Arctic Training Centre, as well as with all government departments and universities conducting scientific research efforts in the Arctic.

Sub-Program 3.2.4: United Nations Convention on the Law of the Sea

Description: Ratification of the United Nations Convention on the Law of the Sea requires Canada to submit the case for extending the outer limits of its offshore beyond 200 nautical miles to the UN Commission on the Limits of the Continental Shelf by December 2013. Through this Sub-program, NRCan conducts seabed and seismic surveys to compile accurate coordinates on the limits of the continental shelf area, as well as to support Foreign Affairs and International Trade Canada with the presentation, interpretation and defence of the scientific evidence included in the formal submission. If successful in defending the case, Canada will secure international recognition for this precisely determined extended area over which it may exercise sovereign rights over the natural resources of the seabed and subsoil.

Budgetary Financial Resources (dollars)

2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
388,292	404,942	424,563

Human Resources (FTEs)

2014-15	2015-16	2016-17
2	2	2

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to be Achieved
Department of Foreign Affairs, Trade and Development (DFATD) presents a comprehensive, scientifically sound report for Canada's claim to the Commission on the Limits of the Continental Shelf beyond 200 nautical miles	Percentage of necessary scientific and technical data and analysis delivered to DFATD for the presentation of Canada's claim to the Commission on the Limits of the Continental Shelf beyond 200 nautical miles	100%	2018

Planning Highlights

In December 2013, Canada filed a submission with the Commission on the Limits of the Continental Shelf for the Atlantic Ocean as well as preliminary information for the Arctic Ocean. In 2014-15, NRCan will continue to collaborate with the departments of Fisheries and Oceans and Foreign Affairs, Trade and Development to archive scientific data and to record key decision points and coordinates. This will include further analysis of the scientific data and may include additional surveys. In the future, this work will serve to support a submission for the full extent of Canada's extended continental shelf in the Arctic Ocean and claim to sovereign rights of additional territory beneath the Arctic Ocean, including the Lomonosov Ridge and the vicinity of the North Pole.

Internal Services

Description: Internal Services are groups of related activities and resources that are administered to support the needs of programs and other corporate obligations of an organization. These groups are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Materiel Services; Acquisition Services; and Other Administrative Services. Internal Services include only those activities and resources that apply across an organization and not to those provided specifically to a program.

Budgetary Financial Resources (dollars)

2014-15 Main Estimates	2014-15 Planned Spending	2015-16 Planned Spending	2016-17 Planned Spending
158,919,551	158,919,551	140,907,322	126,458,800

Human Resources (FTEs)

2014-15	2015-16	2016-17
1,003	1,017	1,014

⑨ **Planning Highlights**

NRCan will pursue its efforts to improve the effectiveness and efficiency of its programs, services and assets. In 2014-15, NRCan will undertake steps to implement its Blueprint 2020 Action Plan aligned with the guiding principles of Blueprint 2020 to achieve the vision for a revitalized, world-class public service.

To better mobilize its S&T, the Department will implement a revised, proactive departmental approach to manage intellectual property. It will document and track NRCan's Signature S&T projects, including development of a performance measurement framework to better assess and convey the relevance, quality and impact of the Department's S&T expertise. And opportunities will be identified to establish new domestic and international S&T partnerships.

NRCan will continue to develop its human capital. It will strengthen the departmental Performance Management Program for employees to meet the requirements of the Treasury Board Directive on Performance Management. The Department will also develop tools and resources to complement the NRCan Values and Ethics Code. The Department will implement the Common Human Resources Business Process Initiative, a multi-year, government-wide initiative to modernize and transform HR processes. This year under the Initiative, new tools will be developed to support the implementation of performance management systems and the provision of human resources-related information within NRCan.

A wide range of initiatives will support the transformation of the department's business. NRCan will continue the implementation of the Common Financial Management Business Processes (such as PeopleSoft and SAP enhancements) and launch a new Travel Solution, two government-wide initiatives. It will closely monitor financial pressures, particularly those associated with its real property assets. To this end, it will explore options related to the disposal of surplus property.

Furthermore, NRCan will complete the implementation of the GCDOCs project, which will establish a new platform for the management of electronic records at NRCan. The Department will also continue its efforts to decrease information management and technology (IMT) expenditures through the reorganization and streamlining of IMT processes and solutions. The Department will continue to support the Government of Canada's web renewal initiative, contributing to an improved user-centric Web presence for Canadians.

NRCan will also improve a series of internal business processes in various areas, from corporate planning and reporting to travel booking and procurement. It will put in place measures to better track the efficiency and effectiveness of its programs.

Additionally, NRCan is a participant in the 2013-16 Federal Sustainable Development Strategy and contributes to targets under Theme IV – Greening Government Operations through the internal services program activity.

The department plans to:

- Reduce the departmental greenhouse gas emissions from its [buildings and fleet] by 17% below 2005 levels by 2020;
- Achieve an industry-recognized level of high environmental performance in Government of Canada real property projects and operations;
- Take action to embed environmental considerations into public procurement, in accordance with the federal Policy on Green Procurement;
- Develop and approach to maintain or improve the sustainability of it workplace operations;
- Establish SMART targets to reduce the environmental impact of its services to clients; and
- Take further action to improve water management within its real property portfolio.

Additional details on NRCan's activities can be found in the Greening Government Operations Supplementary Information Table.

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Section III: Supplementary Information

Future-Oriented Statement of Operations

The future-oriented condensed statement of operations presented in this subsection is intended to serve as a general overview of Natural Resources Canada's operations. The forecasted financial information on expenses and revenues are prepared on an accrual accounting basis to strengthen accountability and to improve transparency and financial management.

Because the future-oriented statement of operations is prepared on an accrual accounting basis and the forecast and planned spending amounts presented in other sections of this report are prepared on an expenditure basis, amounts will differ.

A more detailed future-oriented statement of operations and associated notes, including a reconciliation of the net costs of operations to the requested authorities, can be found on Natural Resources Canada's website[xx].

Future-Oriented Condensed Statement of Operations
For the Year Ended March 31 (thousands of dollars)

Financial Information	Estimated Results 2013-14	Planned Results 2014-15	Change
Total expenses	2,076,591	2,475,529	398,938
Total revenues	31,803	35,051	3,248
Net cost of operations	2,044,788	2,440,478	395,690

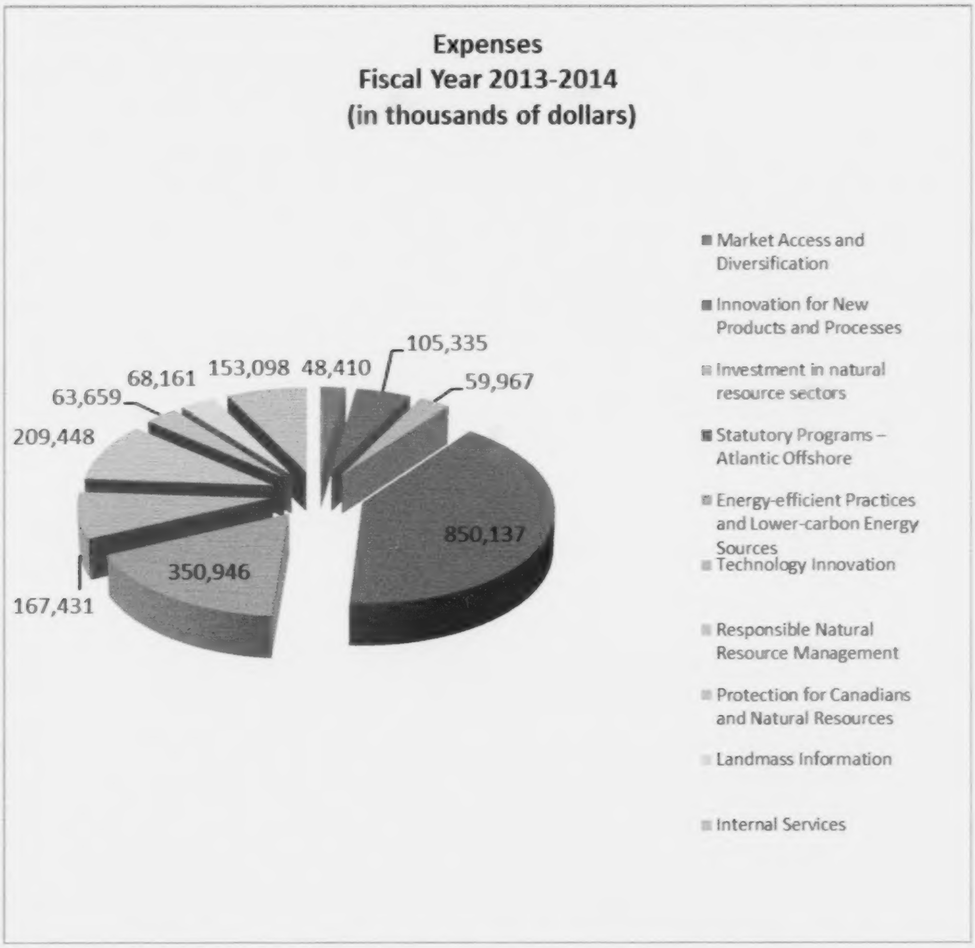
The charts below present the distribution by program of Natural Resources Canada's total estimated expenses for 2013-14 and planned expenses for 2014-15 on an accrual basis. The variance of $398,938 between years can be explained by:

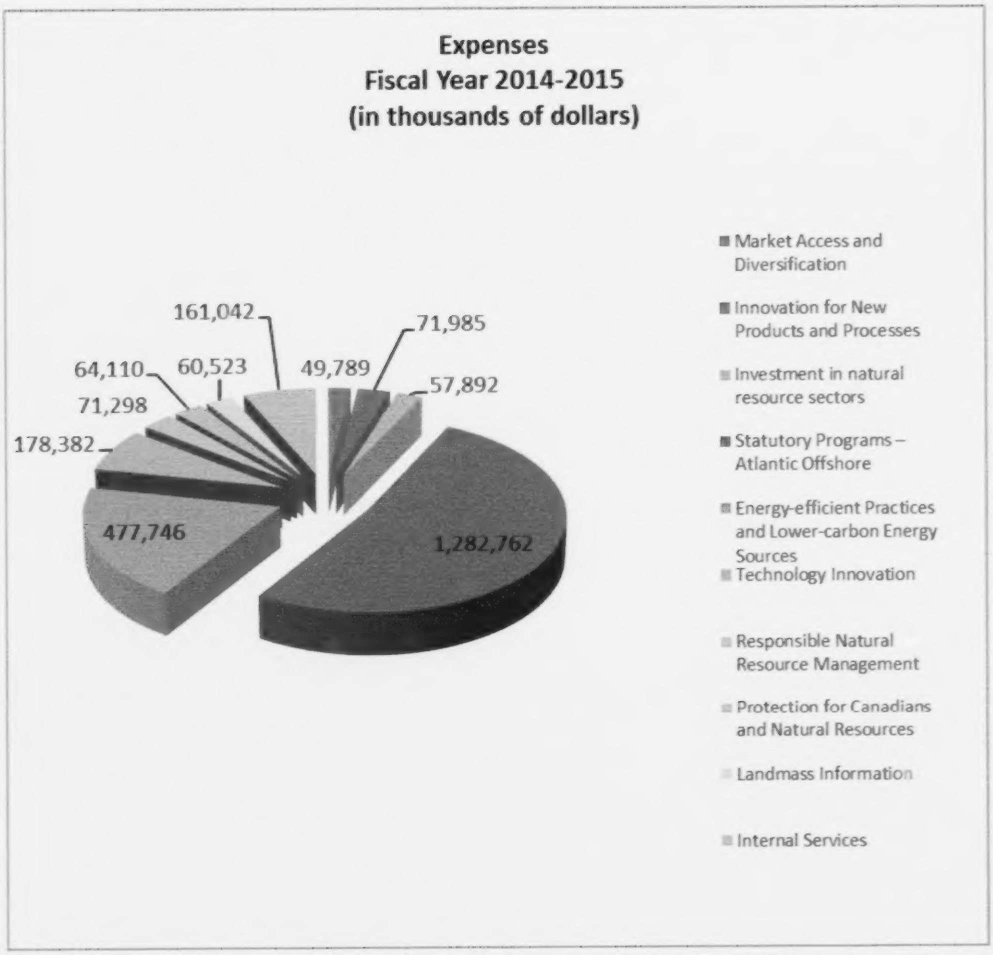
- an increase of $432,625 (from $850,137 in 2013-14 to $1,282,762 in 2014-15) in Statutory Programs – Atlantic Offshore due to fluctuations in oil and gas prices, production levels, exchange rates and operators'costs;
- an increase of $126,800 (from $350,946 in 2013-14 to $477,746 in 2014-15) in Energy-Efficient Practices and Lower-Carbon Energy Sources due largely to variations in

expenses under the ecoENERGY for Biofuels program and Grants to Sustainable Development Technology Canada for the Next Generation Biofuels Fund; and offset by,

- a decrease of $138,150 (from $ 209,448 in 2014-15 to $71,298 in 2014-15) in Responsible Natural Resource Management related largely to variations in expenses under the Nuclear Legacy Liabilities program offset by remediation expenses under the Port Hope Area Initiative.

The revenues remain comparable between years.




Expenses
Fiscal Year 2014-2015
(in thousands of dollars)
161,042
71,985
64,110
60,523
49,789
57,892
71,298
178,382
477,746
1,282,762
Market Access and Diversification
Innovation for New Products and Processes
Investment in natural resource sectors
Statutory Programs – Atlantic Offshore
Energy-efficient Practices and Lower-carbon Energy Sources
Technology Innovation
Responsible Natural Resource Management
Protection for Canadians and Natural Resources
Landmass Information
Internal Services

List of Supplementary Information Tables

The supplementary information tables listed in the *2014–15 Report on Plans and Priorities* can be found on Natural Resources Canada's website[xxi].

- Details on Transfer Payment Programs;
- Disclosure of TPPs under $5 million;
- Up-Front Multi-Year Funding;
- Greening Government Operations;
- Horizontal Initiatives;
- Upcoming Internal Audits and Evaluations over the next three fiscal years; and
- User Fees.

Tax Expenditures and Evaluations Report

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance publishes cost estimates and projections for these measures annually in the *Tax Expenditures and Evaluations*[xxii] publication. The tax measures presented in the Tax Expenditures and Evaluations publication are the sole responsibility of the Minister of Finance.

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Section IV: Organizational Contact Information

Jennifer Hollington, Director General

Endnotes

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[xx] Future Oriented Statement of Operations
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[xxi]. Report on Plans and Priorities – Supplementary Tables,
http://www.nrcan.gc.ca/plans-performance-reports/205

xxii. Government of Canada Tax Expenditures,
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